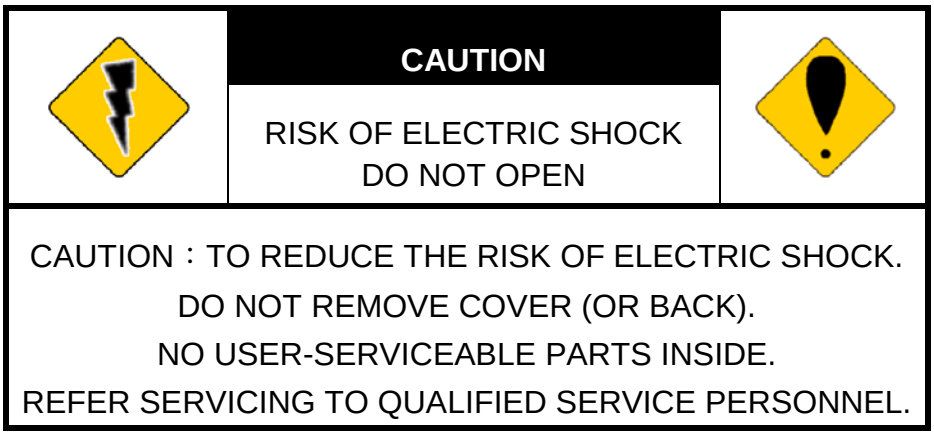
User Manual

IP CAMERA

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MISTURE.
DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

CAUTION


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION：TO REDUCE THE RISK OF ELECTRIC SHOCK.
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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THE TRADEMARKS MENTIONED IN THE MANUAL ARE LEGALLY REGISTERED TO THEIR RESPECTIVE COMPANIES.

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I. Preface

This is a 1/2.7” 2 Megapixel CMOS sensor Outdoor IP camera with a built-in web server. The user can view real-time video via IE browser. It supports H.264, and M-JPEG video compression which provides smooth and high video quality. The video can be stored in the Micro SD card and playback remotely.

With a user friendly interface, it is an easy-to-use IP camera which is designed for security application.

II. Product Specifications

- Full HD 1080P Real Time
- 3D+2D Digital Noise Reduction
- Digital Wide Dynamic Range
- Power over Ethernet available
- IR LED Built in 25M available
- Smart Focus System for Remote Focus Adjustment
- H.264/ M-JPEG/ MPEG4 compression
- Micro SD card backup
- 2-way audio
- Video Output
- IP66
- Support iPhone/iPad/Android
- SDK for Software Integration

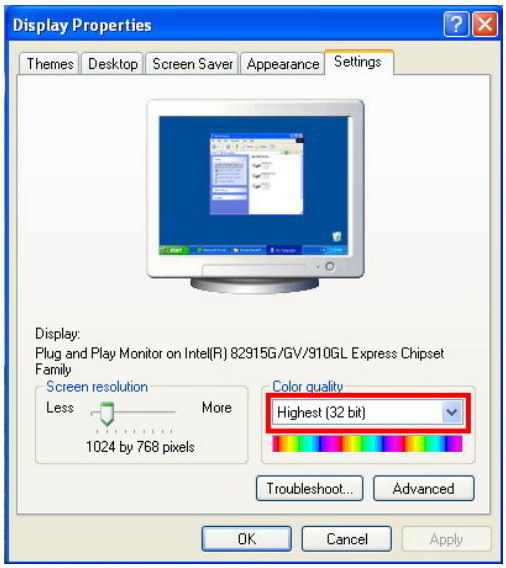
For the detail specification , please refer to the data sheet

III. Product Installation

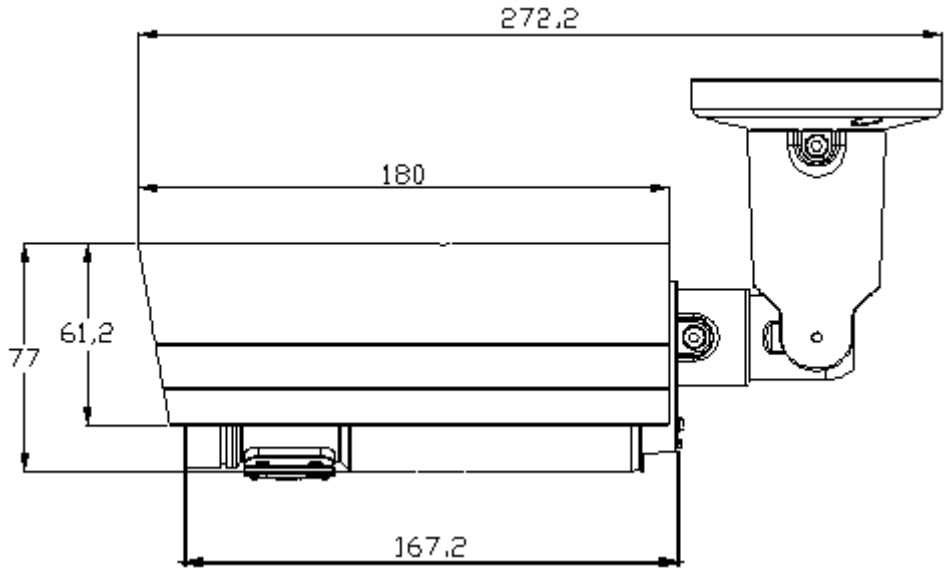
A. Monitor Setting

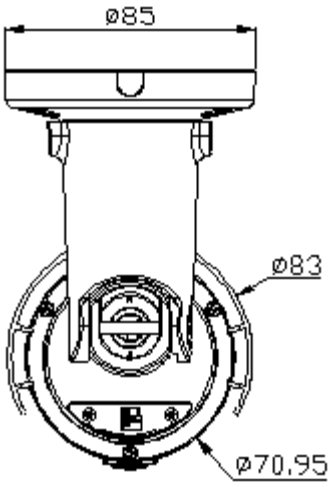
i. Right-Click on the desktop. Select “ Properties”

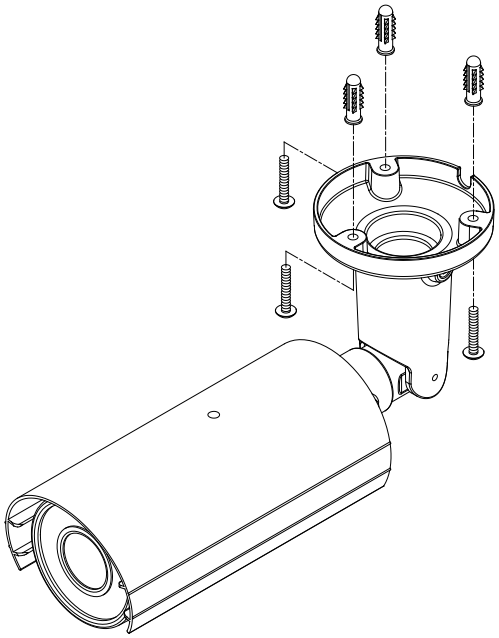
ii. Change color quality to highest (32bit).



B. Hardware Installation

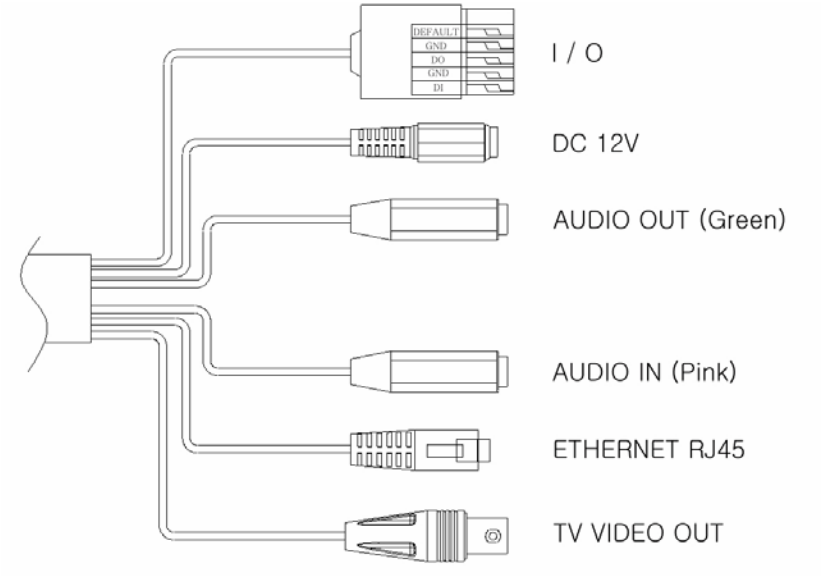






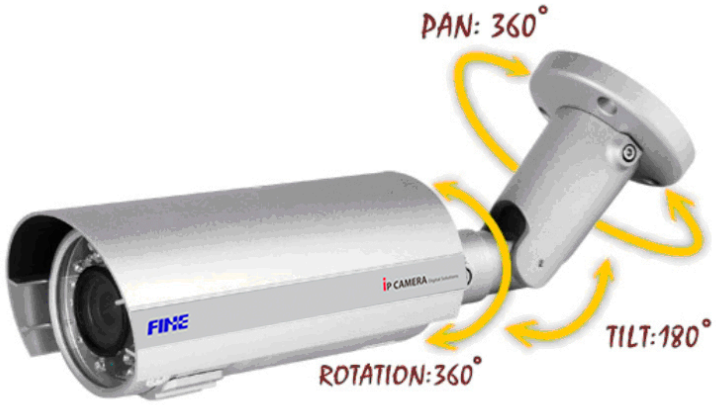
1. Connector Instruction

The Cable and connectors are as below. Connect power adaptor first, then connect the IP Camera to PC or network, and set up the network configurations according to the network environment. About I/O setting, please refer to chapter VII in User Manual: "I/OConfiguration" for detail.



2. 3-Axis Bracket

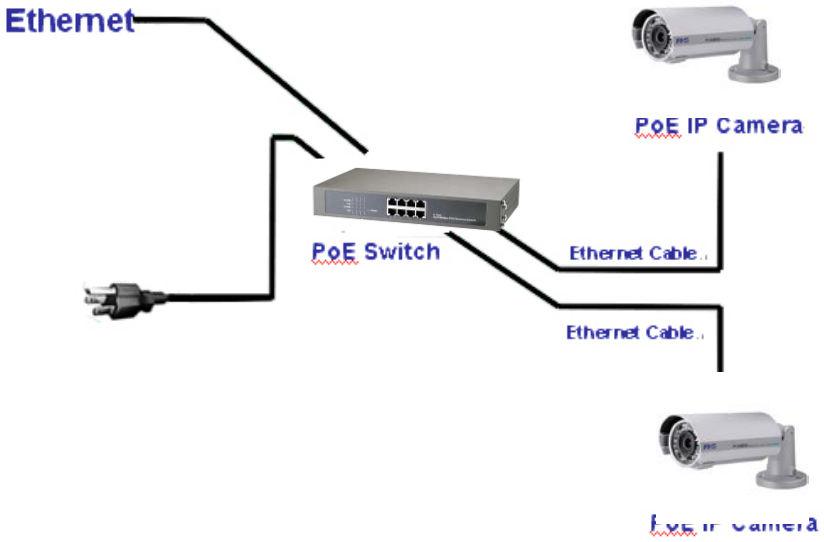
Use the 3-Axis bracket to adjust the camera to appropriate angle, then turn and tighten the screw to fix it.



3. PoE (Power Over Ethernet)(Optional) 802.3af, 15.4W PoE Switch is recommended

Power over Ethernet (PoE) is a technology that integrates power into a

standard LAN infrastructure. It enables power to be provided to a network device, such as an IP phone or a network camera, using the same cable as that used for network connection. It eliminates the need for power outlets at the camera locations and enables easier application of uninterruptible power supplies (UPS) to ensure 24 hours a day, 7 days a week operation.



C. IP Assignment

i. Use the software, “IP Installer” to assign the IP address of IP CAMERA. The software is in the attached software CD.

ii. IP installer supports two languages

a. IPInstallerCht.exe：Chinese version
b. IPInstallerEng.exe：English version

iii. There are 3 kinds of IP configuration.

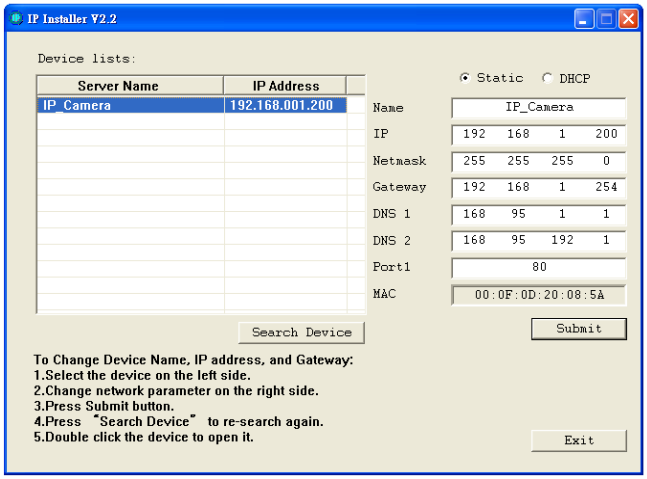
a. Fixed IP (Public IP or Virtual IP)
b. DHCP (Dynamic IP)
c. Dial-up (PPPoE)

iv. Execute IP Installer

v. For Windows XP SP2 user, it may popup the following message box. Please click “Unblock”.

Windows Security Alert
To help protect your computer, Windows Firewall has blocked some features of this program.
Do you want to keep blocking this program?
Name: IPInstaller V2.1 Network Device Scan
Publisher: Unknown
Keep Blocking
Unblock
Ask Me Later
Windows Firewall has blocked this program from accepting connections from the Internet or a network. If you recognize the program or trust the publisher, you can unblock it. When should I unblock a program?

vi. IP Installer configuration:



vii. IP Installer will search all IP Cameras connected on LAN. The user can click “Search Device” to search again.

viii. Click one of the IP Camera listed on the left side. The network configuration of this IP camera will show on the right side. You may change the “name” of the IP Camera to your preference (eg: Office, warehouse). Change the parameter and click “Submit” then click “OK”. It will apply the change and reboot the Device.

ix. Please make sure the subnet of PC IP address and IP CAM IP address are the same.

The same Subnet:

IP CAM IP address: 192.168.1.200

PC IP address: 192.168.1.100

Different Subnets:

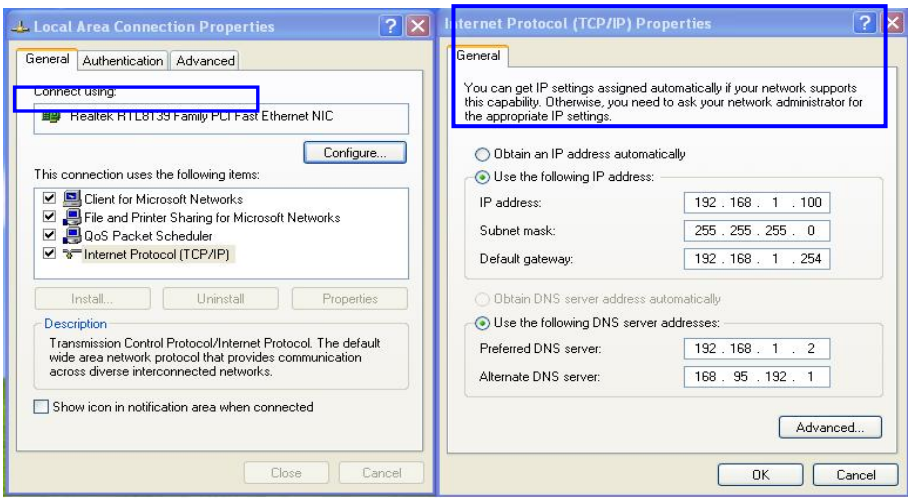
IP CAM IP address: 192.168.2.200

PC IP address: 192.168.1.100

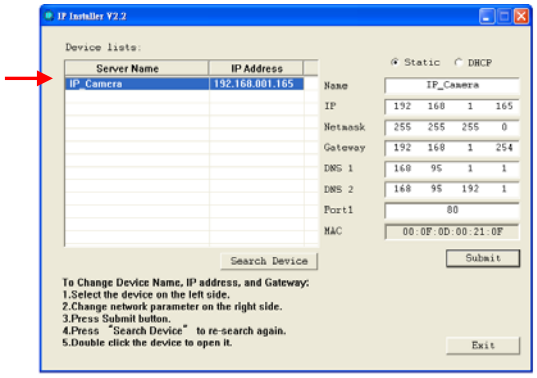
To Change PC IP address:

Control Panel→Network Connections→Local Area Connection Properties→Internet Protocol (TCP/IP) →Properties

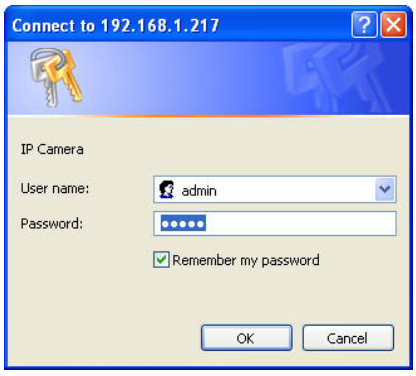
Please make sure your IP Camera and PC have the same Subnet. If not, please change IP Camera subnet or PC IP subnet accordingly.


Local Area Connection Properties
General
Authentication
Advanced
Connect using:
Realtek RTL8139 Family PCI Fast Ethernet NIC
Configure...
This connection uses the following items:
Client for Microsoft Networks
File and Printer Sharing for Microsoft Networks
QoS Packet Scheduler
Internet Protocol (TCP/IP)
Install...
Uninstall
Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in notification area when connected
Close
Cancel
Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address: 192 . 168 . 1 . 100
Subnet mask: 255 . 255 . 255 . 0
Default gateway: 192 . 168 . 1 . 254
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server: 192 . 168 . 1 . 2
Alternate DNS server: 168 . 95 . 192 . 1
Advanced...
OK
Cancel

x. A quick way to access remote monitoring is to left-click the mouse twice on a selected IP Camera listed on “Device list” of IP Installer. An IE browser will be opened.



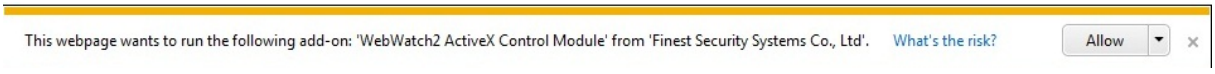
xi. Then, please key in the default “user name: admin” and “password: admin”.



D. Install ActiveX control:

1. To users of IE 6.0 above:

For the first time to view the camera video via IE, it will ask you to install the ActiveX component.

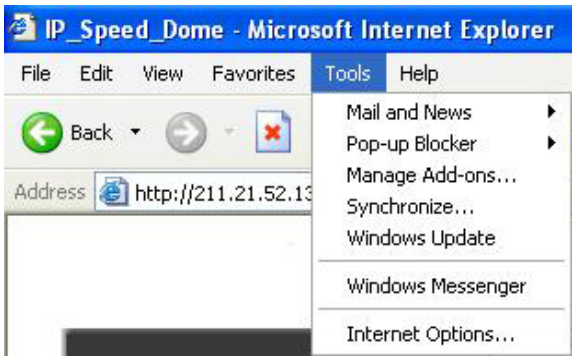

This webpage wants to run the following add-on: 'WebWatch2 ActiveX Control Module' from 'Finest Security Systems Co., Ltd'.
What's the risk?
Allow

1. If the installation failed, please check the security setting for the IE browser.

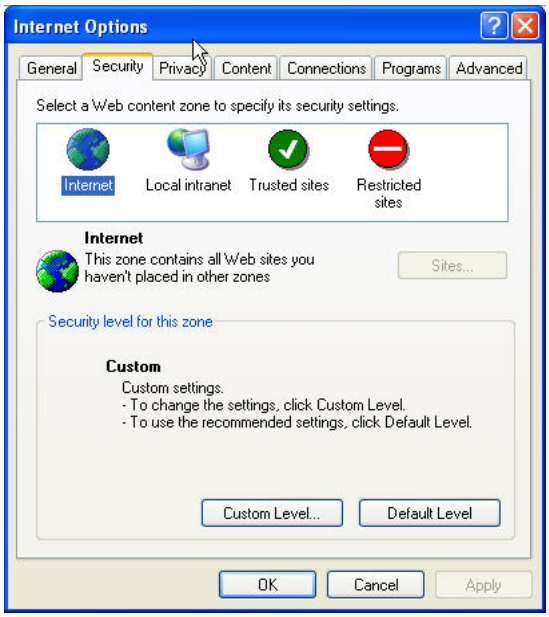
i. IE → Tools → Internet Options… → Security Tab → Custom Level… → Security Settings → Download unsigned ActiveX controls→ Select “Enable” or Prompt.

ii. IE → Tools → Internet Options… → Security Tab → Custom Level… →Initialize and script ActiveX controls not marked as safe → Select “Enable” or Prompt.

1

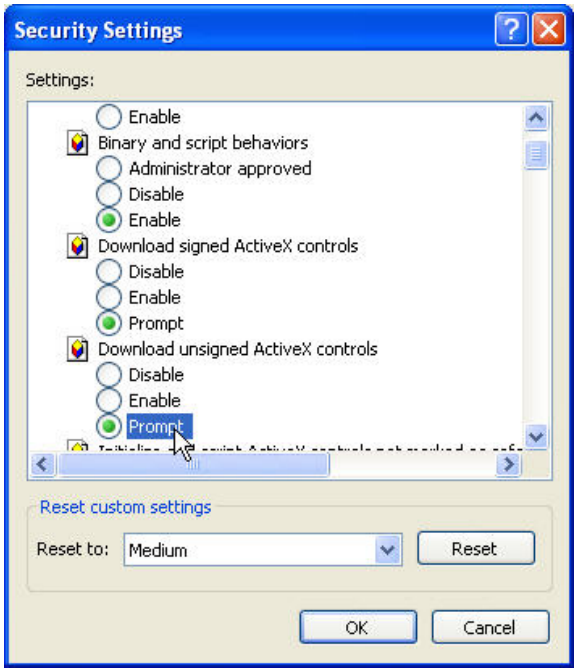


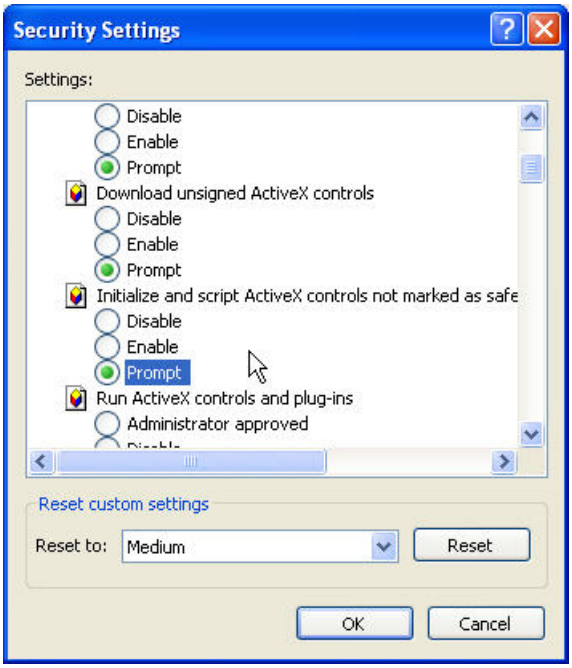
2



3

4





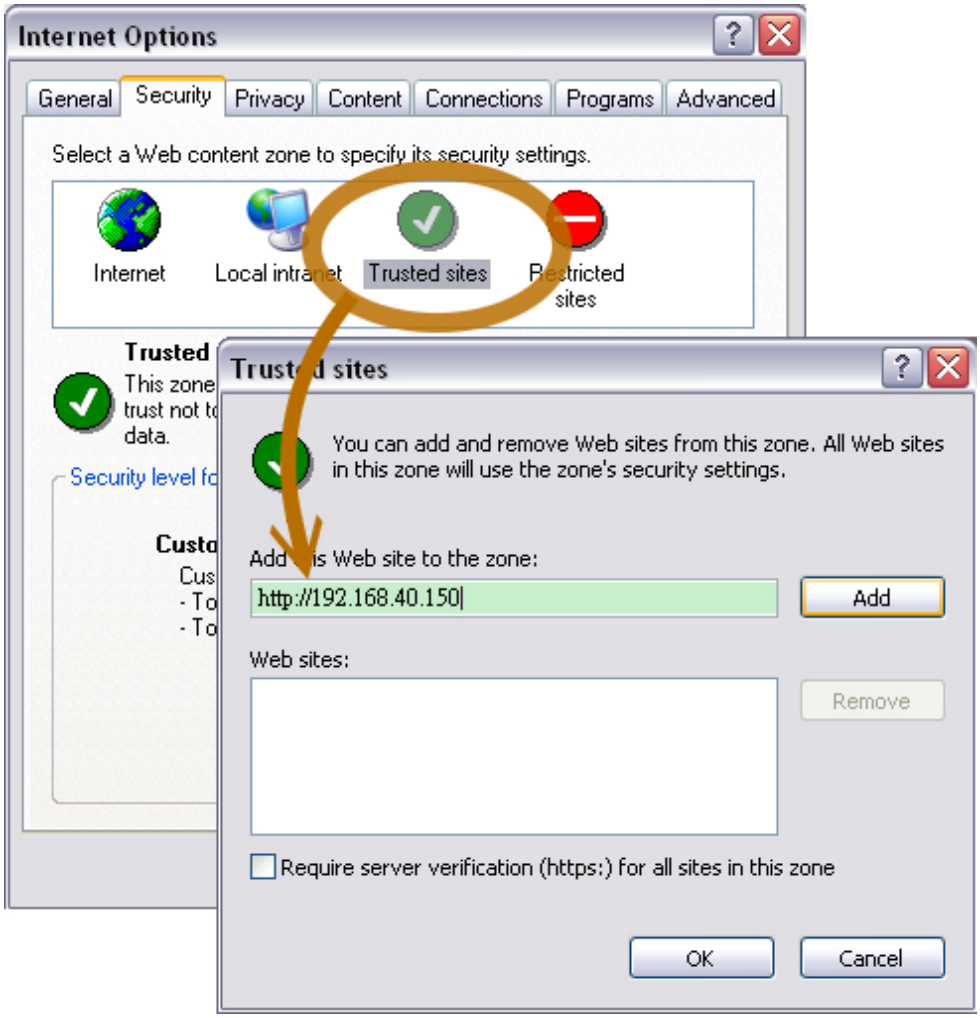
5

When popup the following dialogue box, click “Yes”.

2. You can choose another way:

Go to: IE→Tools → Internet Options… → Security Tab → Trusted sites → Add the IP address and click "OK".

In the site list you can key one single IP address or a LAN address. For example, if you add "192.168.21.*", all the IP address under .21 LAN will be regarded as trusted sites.

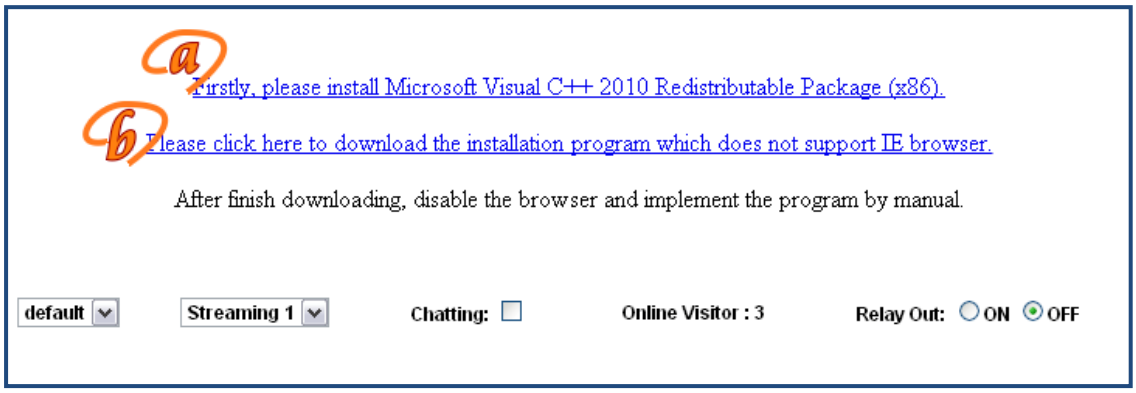


2. Use Non-IE Web Browser

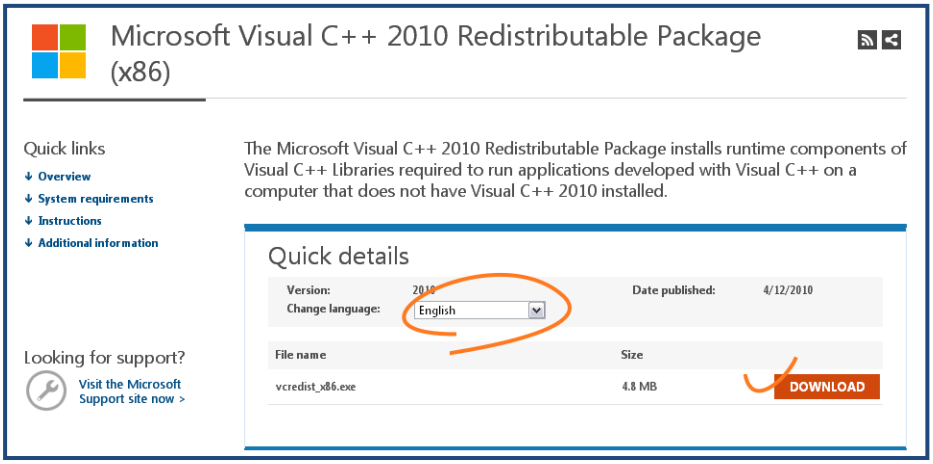
If you use Firefox or Google chrome to access the IP camera but fail to watch the live video, please follow the steps to install necessary tools:
(The following pictures are based on chrome.)

a. You may see the prompt message as the picture below. First, click the link:

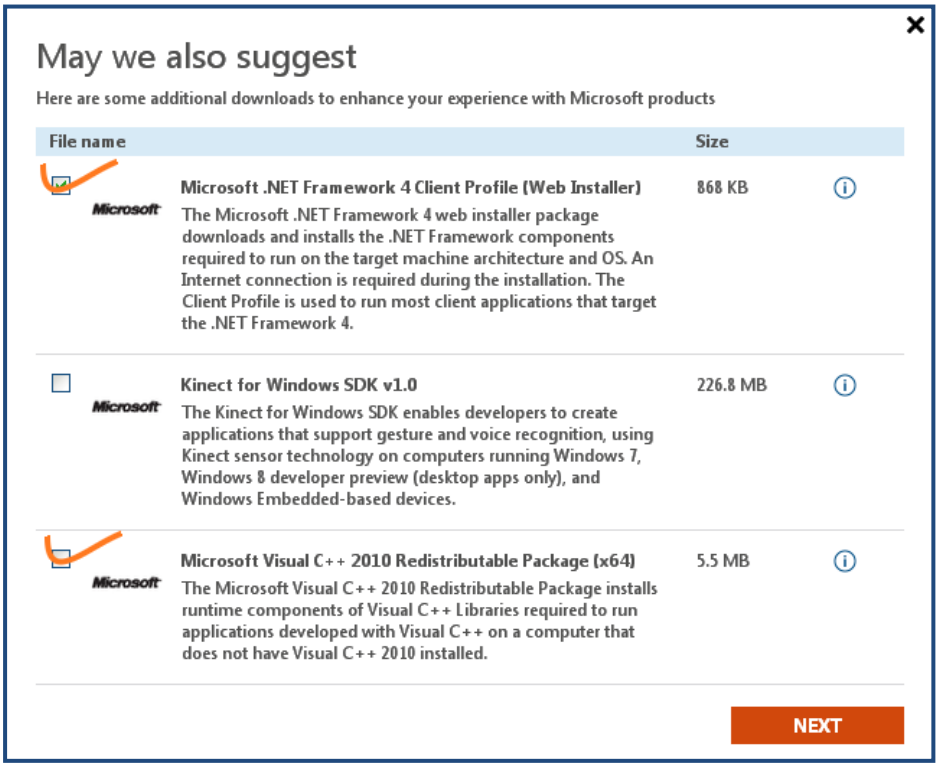
"Firstly, please install Microsoft Visual C++ 2010 Redistributable Package (x86)."


a
Firstly, please install Microsoft Visual C++ 2010 Redistributable Package (x86).
b
Please click here to download the installation program which does not support IE browser.
After finish downloading, disable the browser and implement the program by manual.
default
Streaming 1
Chatting:
Online Visitor : 3
Relay Out: ON OFF

(i) The link conducts you to the Microsoft official site where you can download the tools. Please select the language and click "download".



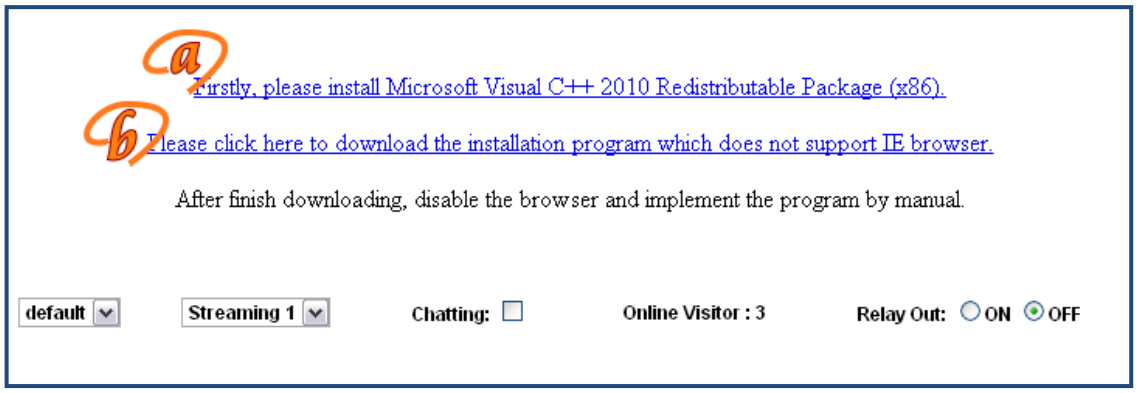
(ii) In the pop-up window, please tick the first and the third file as the picture below. Click "Next" to download both "Microsoft .NET Framework 4 Client Profile (Web Installer)" and "Microsoft Visual C++ 2010 Redistributable Package (x64)".


May we also suggest
Here are some additional downloads to enhance your experience with Microsoft products
File name
Size
Microsoft .NET Framework 4 Client Profile (Web Installer)
868 KB
The Microsoft .NET Framework 4 web installer package downloads and installs the .NET Framework components required to run on the target machine architecture and OS. An Internet connection is required during the installation. The Client Profile is used to run most client applications that target the .NET Framework 4.
Kinect for Windows SDK v1.0
226.8 MB
The Kinect for Windows SDK enables developers to create applications that support gesture and voice recognition, using Kinect sensor technology on computers running Windows 7, Windows 8 developer preview (desktop apps only), and Windows Embedded-based devices.
Microsoft Visual C++ 2010 Redistributable Package (x64)
5.5 MB
The Microsoft Visual C++ 2010 Redistributable Package installs runtime components of Visual C++ Libraries required to run applications developed with Visual C++ on a computer that does not have Visual C++ 2010 installed.
NEXT

(iii) After finishing downloading, execute the two files respectively to install them. The windows may ask you to reboot the PC when the installation is finished.

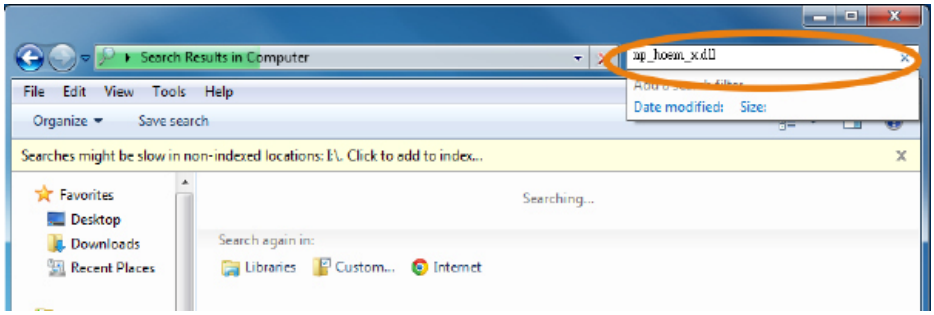
b. Then, click the second link "Please click here to download the installation program which does not support IE browser." to download Setup ActiveX.

After finishing the downloading, execute the files to install ActiveX. Then restart the browser.

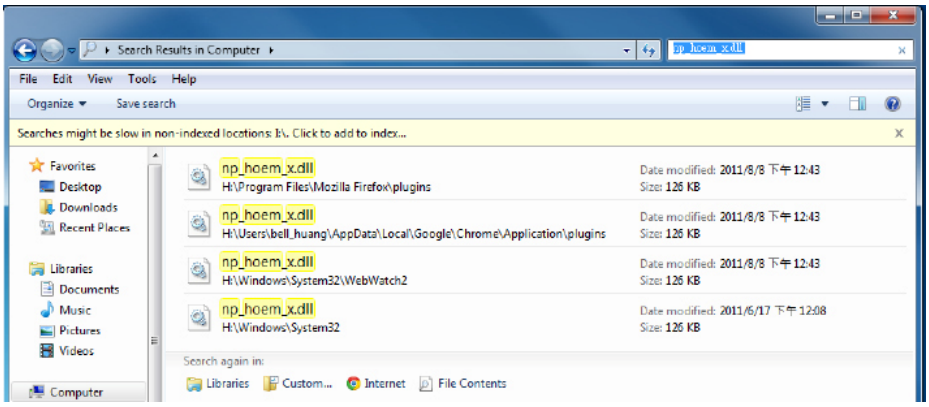

a
Firstly, please install Microsoft Visual C++ 2010 Redistributable Package (x86).
b
Please click here to download the installation program which does not support IE browser.
After finish downloading, disable the browser and implement the program by manual.
default
Streaming 1
Chatting:
Online Visitor : 3
Relay Out: ON OFF

c. If you execute the steps above but still cannot see the live video normally, please try the solution:

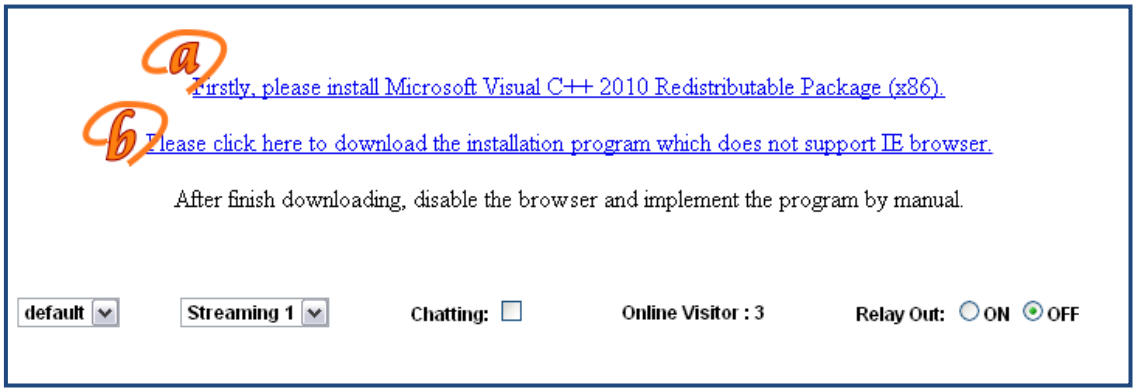
(i) Search for the file "np_hoem_x.dll" in your system disk. For Windows XP users, please go to "Start" → "Search" → Search for "All files and folders" and key-in "np_hoem_x.dll". For Windows 7 users, please use the search bar on the top-right of the Windows Explorer.



(ii) Delete all the files named "np_hoem_x.dll". They're the ActiveX control tools installed in your computer, but the old version of ActiveX might not compatible with the new version of browser. Therefore, they need to be deleted in order to install the latest ActiveX control.

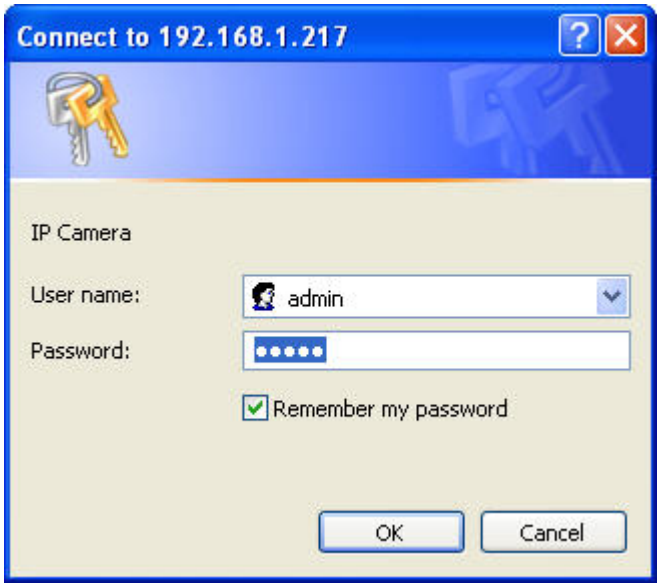


(iii) Start your web browser, and repeat the step 2-b: "Download the installation program which does not support IE browser" to download and install ActiveX.

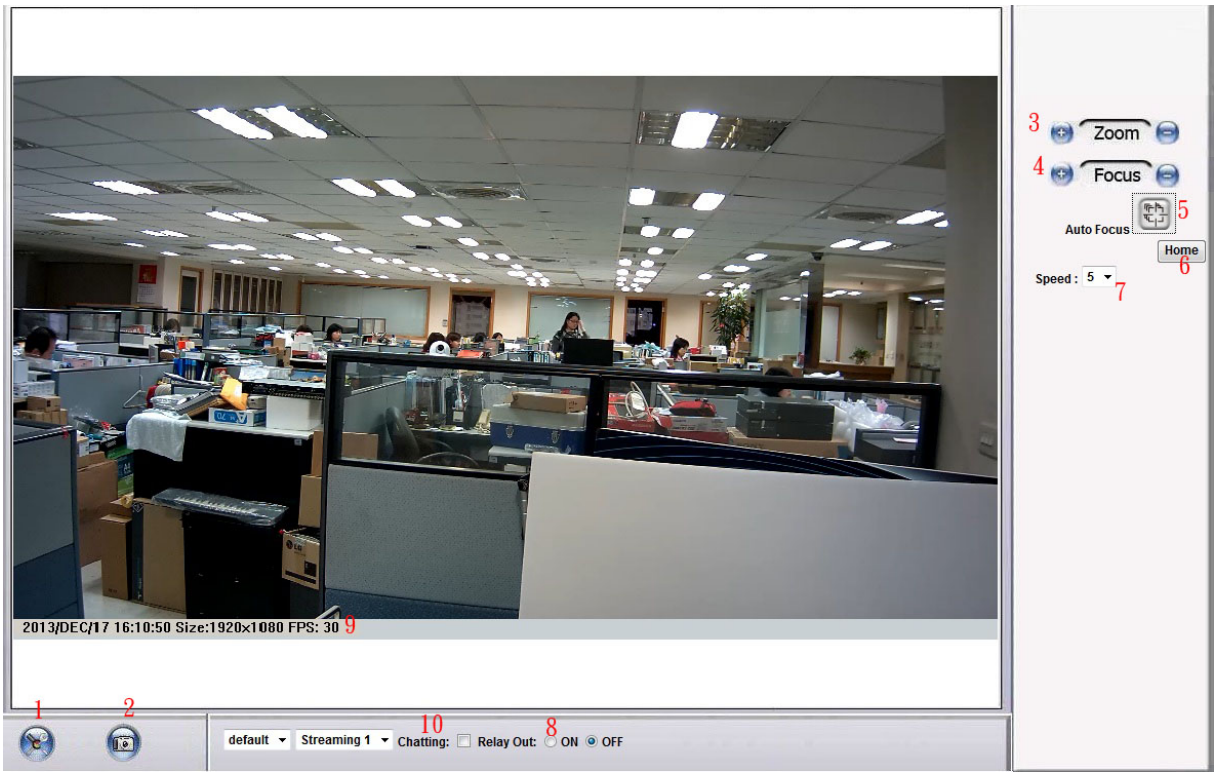

a
Firstly, please install Microsoft Visual C++ 2010 Redistributable Package (x86).
b
Please click here to download the installation program which does not support IE browser.
After finish downloading, disable the browser and implement the program by manual.
default
Streaming 1
Chatting:
Online Visitor : 3
Relay Out: ON OFF

IV. Live Video

Start an IE browser, type the IP address of the IP camera in the address field. It will show the following dialogue box. Key-in the user name and password. The default user name and password are “**admin**” and “**admin**”.



When the IP Camera is connected successfully, it shows the following program interface.



Double-click the video to switch to full screen view. Press “Esc” or double-click the video again back to normal mode.

1. Get into administration page

2. Video Snapshot

3. Zoom-in / Zoom-out

4. Reduce / Increase focus

5. Auto focus

6. Home: The IP came goes back to the default zoom and focus values.

7. Control mode:

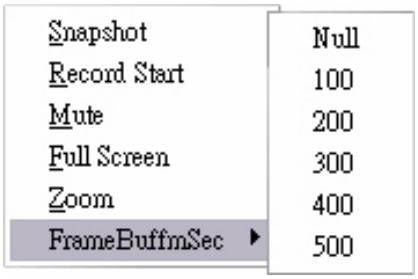
8. Tick the Relay out "ON" box to trigger the relay output for testing. Tick "Off" to stop triggering.

9. Show system time, video resolution, and video refreshing rate

10. The IP Camera supports 2-way audio. Click the “Chatting” check box for using a microphone connected to the PC and talk to the Camera side.

By double-clicking the video will change to full screen mode. Press “Esc” or double-click the video again for changing back to normal mode.

Right-Click the mouse on the video, it will show a pop-up menu.



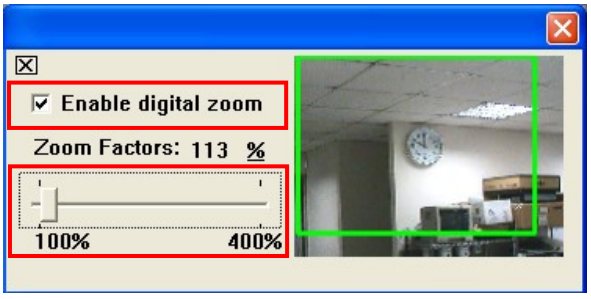
1. Snapshot：Save a JPEG picture

2. Record Start: Record video in the local PC. It will ask you where to save the video. To stop recording, right-click the mouse again. Select “Record Stop”. The video format is AVI. Use Microsoft Media Player to play the recorded file.

3. Mute: Turn off the audio. Click again to turn it on.

4. Full Screen: Full-screen mode.

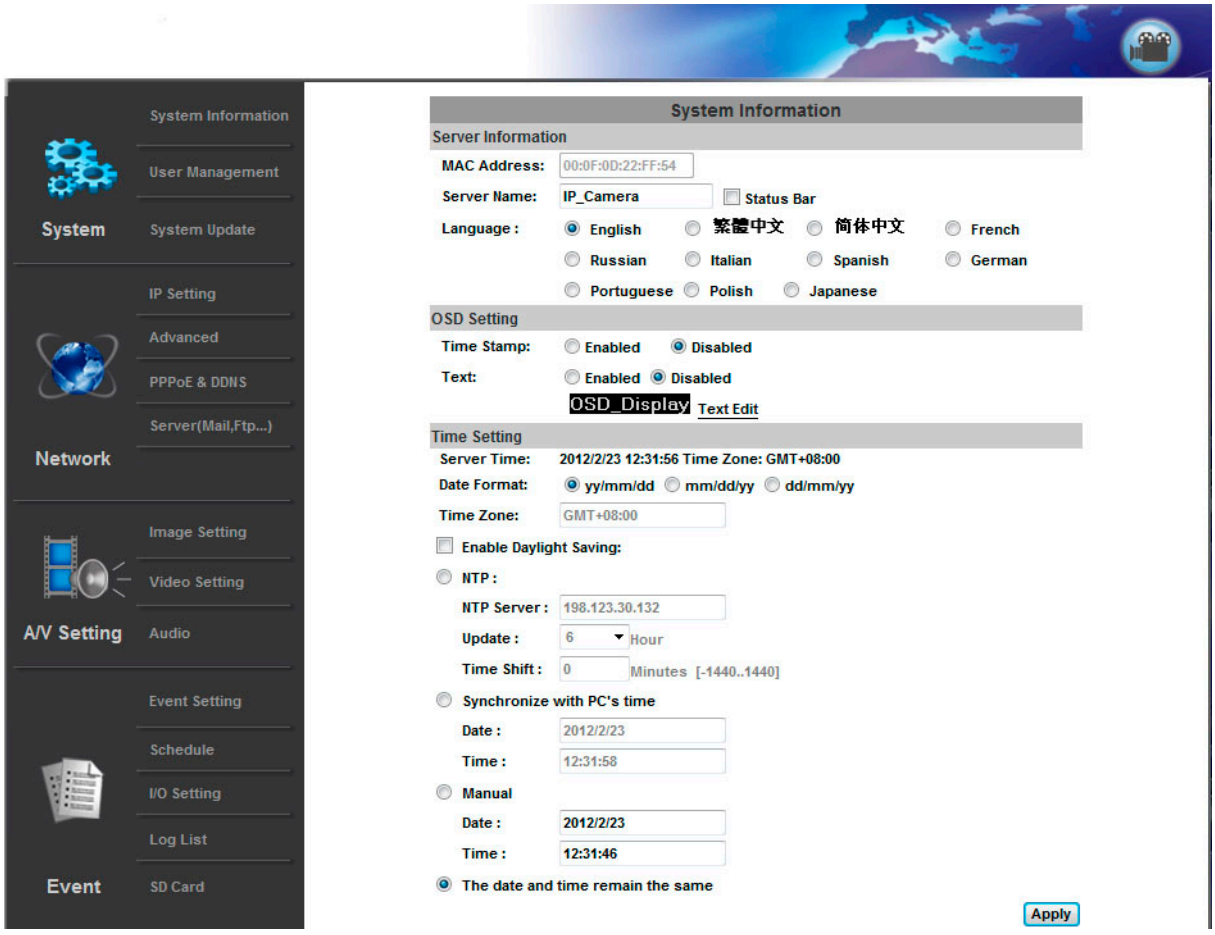
5. ZOOM: Enable zoom-in and zoom-out functions. Select “Enable digital zoom” option first on the pop-up dialogue box and then drag and drop the bar to adjust the zoom factors.



6. Frame Buffm Sec: Build a buffm to accumulate several video frames and play them at regular intervals. This function can keep the video smoothly when the Network speed is slow. If you select “100”, the interval between every frame is fixed to 100 mSec. The slower the Network is, the bigger value should be selected. The default value is null.

V. IP Camera Configuration

Click to get into the administration page. Click to go back to the live video page.



A.System

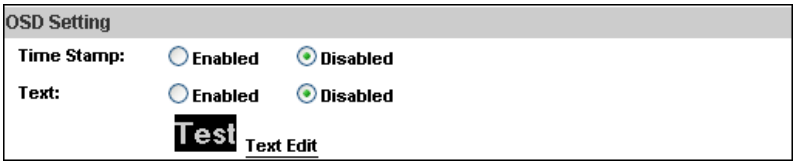
i、 System Information

a. Server Information: Set up the camera name, select language, and set up the camera time.

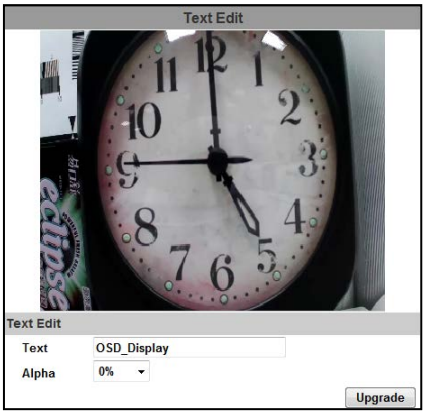
1. Server Name: This is the Camera name. This name will be shown on the IP Installer.

2. Select language: English, Traditional Chinese, and Simplified Chinese can be selected. When it changes, it will show the following dialogue box to confirm the language changing.

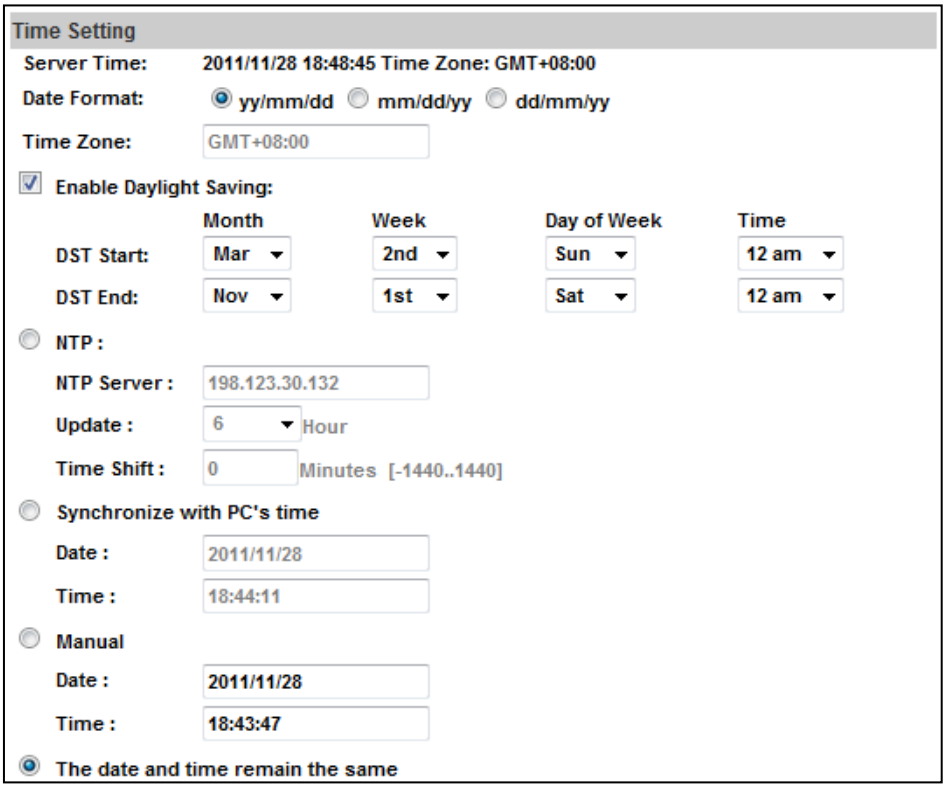
b. OSD Setting: Select a position where the date & time stamp / text are shown on the screen.



Moreover, click Text Edit for changing the OSD content, including text size and alpha. Finally, click the Upgrade button to keep the settings.

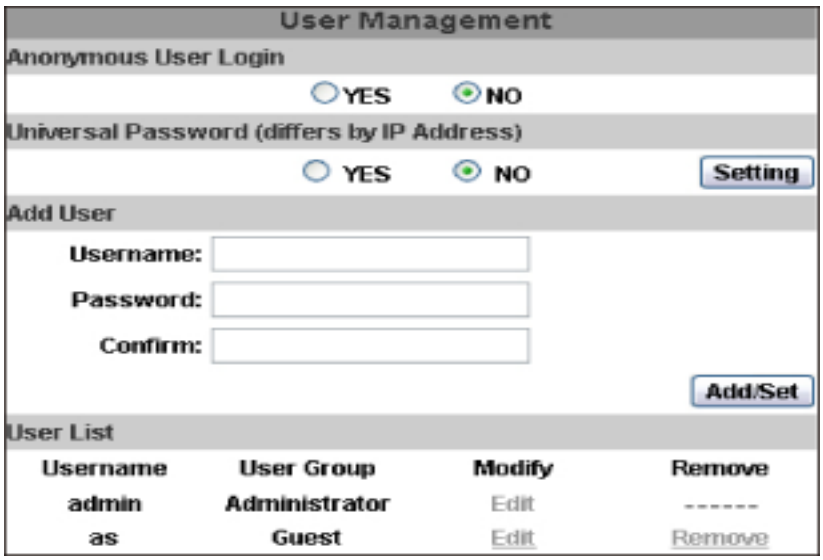


c. Server time setting: Select options to set up time - “NTP”, “Synchronize with PC’s time”, “Manual”, “The date and time remain the same”.


Time Setting
Server Time: 2011/11/28 18:48:45 Time Zone: GMT+08:00
Date Format: yy/mm/dd mm/dd/yy dd/mm/yy
Time Zone: GMT+08:00
Enable Daylight Saving:
Month Week Day of Week Time
DST Start: Mar 2nd Sun 12 am
DST End: Nov 1st Sat 12 am
NTP :
NTP Server : 198.123.30.132
Update : 6 Hour
Time Shift : 0 Minutes [-1440..1440]
Synchronize with PC's time
Date : 2011/11/28
Time : 18:44:11
Manual
Date : 2011/11/28
Time : 18:43:47
The date and time remain the same

ii、 User Management

The IP Camera supports three different users, administrator, general user, and anonymous user.



a. Anonymous User Login:

Select “Yes” for allowing everybody to watch live video without username and password. However, if you try to enter the configuration page the camera will ask you to key-in username and password.

Select "No" for requiring a username and login to access the camera.

b. Universal Password:

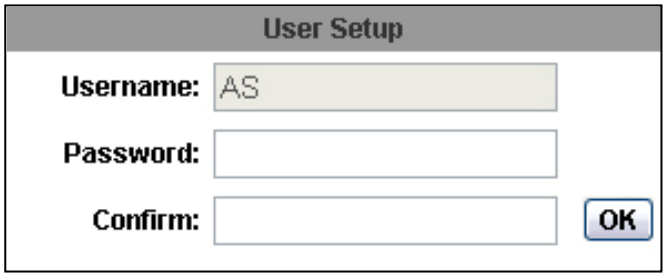
Select “Yes” for allowing login to this IP Cam by universal password. Please refer to “Universal Password” chapter for more explanations.

Select “No” for disabling universal password.

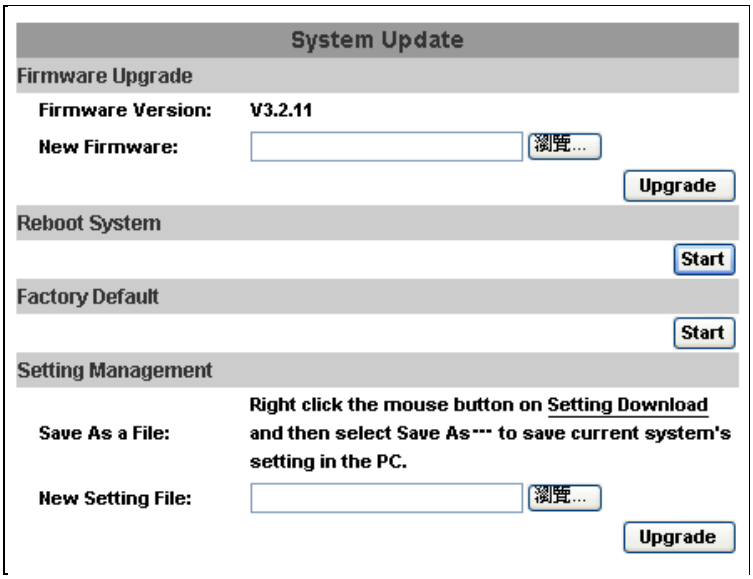
c. Add user:

Type the user name and password, then click “Add/Set”. The guest user can only browse live video page and is not allowed to enter the configuration page.

d. Click “edit” or “delete” in the user list to modify them. The system will ask you to key-in the password in the pop-up window before you edit the user information.



iii、 System update：



a. To update the firmware online, click “Browse…” to select the firmware. Then click “Upgrade” to proceed.

b. Reboot system: re-start the IP camera

c. Factory default: delete all the settings in this IP camera.

d. Setting Management: The user may download the current settings to PC, or upgrade from previous saved settings.

1. Settings download:

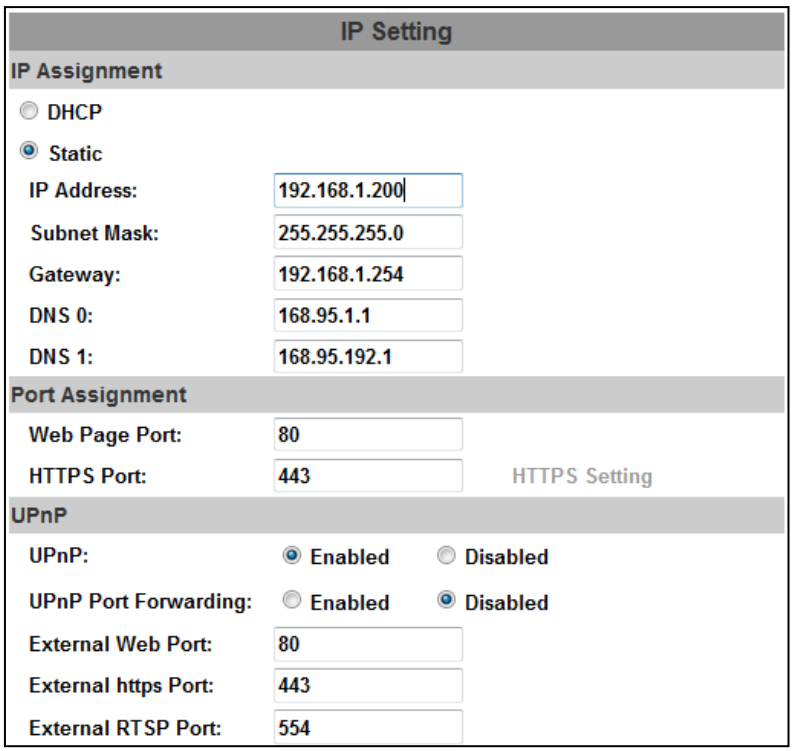
   Right-click the mouse button on Setting Download → Select "Save AS…" to save current IP Camera settings in PC → Select saving directory → Save

2. Upgrade from previous settings
   Browse → search previous settings → open → upgrade → Settings update confirm → click **index.html**. for returning to main page

B. Network

i、 IP Settings

The IP Camera supports DHCP and static IP.



a. DHCP: The IP Camera will get all the network parameters automatically.

b. Static IP: Type-in the IP address subnet mask, gateway, and DNS manually.

c. Port Assignment: The user may need to assign different port to avoid conflicts when setting up the IP.

1. Web Page Port: setup web page connecting port and video

transmitting port (Default: 80)

2. HTTPs Port: setup the https port(Default: 443)

d. UPnP

This IP camera supports UPnP, if this service is enabled on your computer, the camera will automatically be detected and a new icon will be added to “My Network Places.”

UPnP Port Forwarding：Enable UPnP Port Forwarding for accessing the IP Camera from the Internet; this option allows the IP Cam to open ports on the router automatically so that video streams can be sent out from a LAN. There are three external ports for being set: Web Port, Http Port and RTSP port. To utilize of this feature, make sure that your router supports UPnP and is activated.

Note: *UPnP must be enabled on your computer.*

Please follow the procedure to activate UPnP:

1. *open the* ***Control Panel*** *from the* ***Start Menu***

2. *Select* ***Add/Remove Program****s*

3. *Select* ***Add/Remove Windows Components*** *and open* ***Networking Services*** *section*

4. *Click* ***Details*** *and select* ***UPnP*** *to setup the service*

5. *The IP device icon will be added to “MY Network Places”*

6. *User may double click the IP device icon to access IE browser*

e. RTSP setting

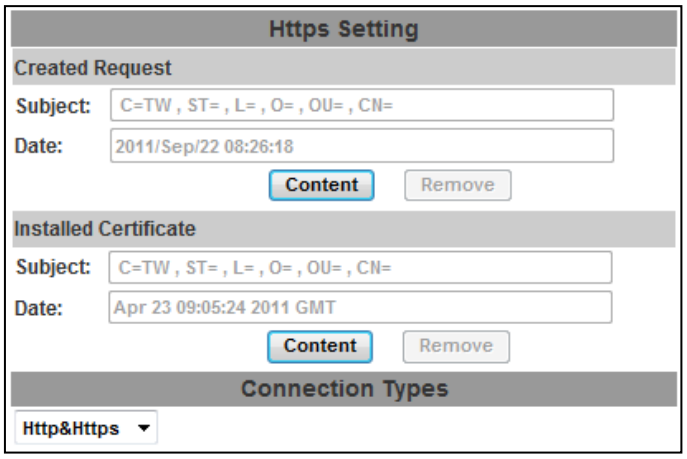
1. RTSP Server: enable or disable

2. RTSP Port: setup port for RTSP transmitting (Default: 554)

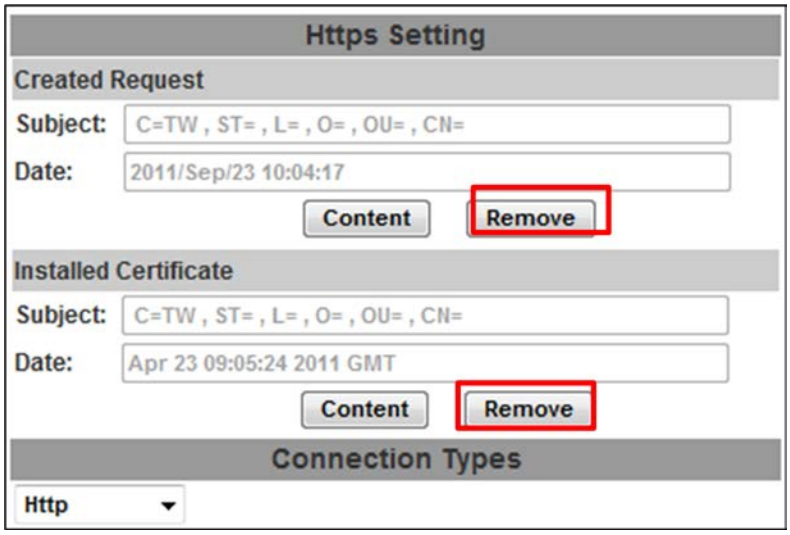
3. RTP Start and End Port: in RTSP mode, you may use TCP and UDP for connecting. TCP connection uses RTSP Port (554). UDP connection uses RTP Start and End Port.

ii、 Advanced:

a. Https (Hypertext Transfer Protocol Secure): Https can help to protect streaming data transmission on a higher security level.

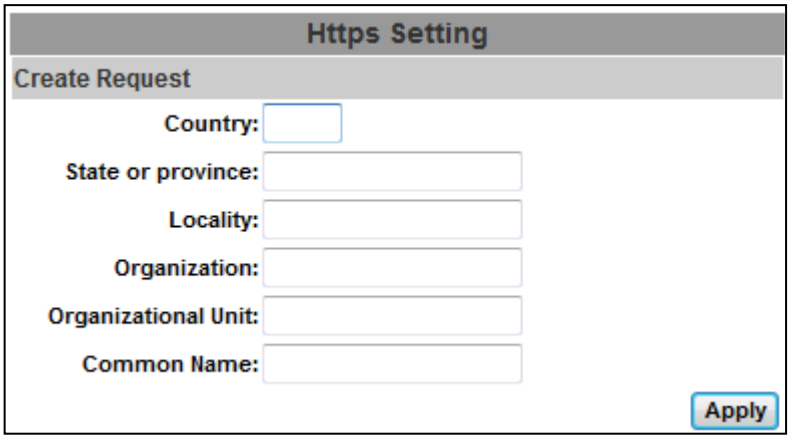


Https setting: Before setting a new request, please remove the old security identification at the Http connection type.



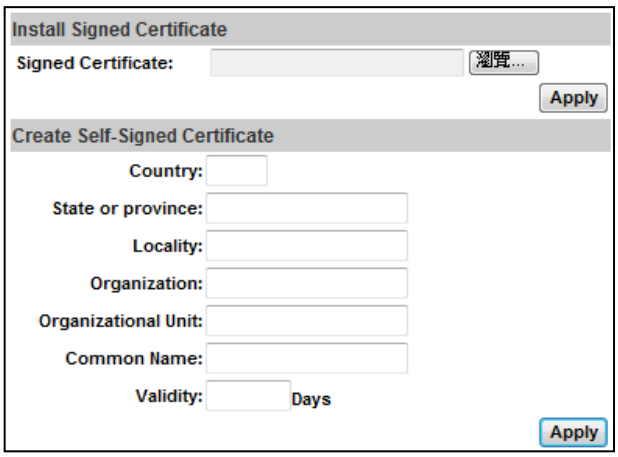
1. Created Request: remove the security identification in Created request mode. There is a warning message shown. Please set “Yes” to remove the security identification.

2. Setting the security identification and apply it.



3. Installed Certificate: remove Certificate in. Installed Certificate mode. There will show another warning message.

4. There are two ways to set: Install Signed Certificate and Create Self-Signed Certificate.



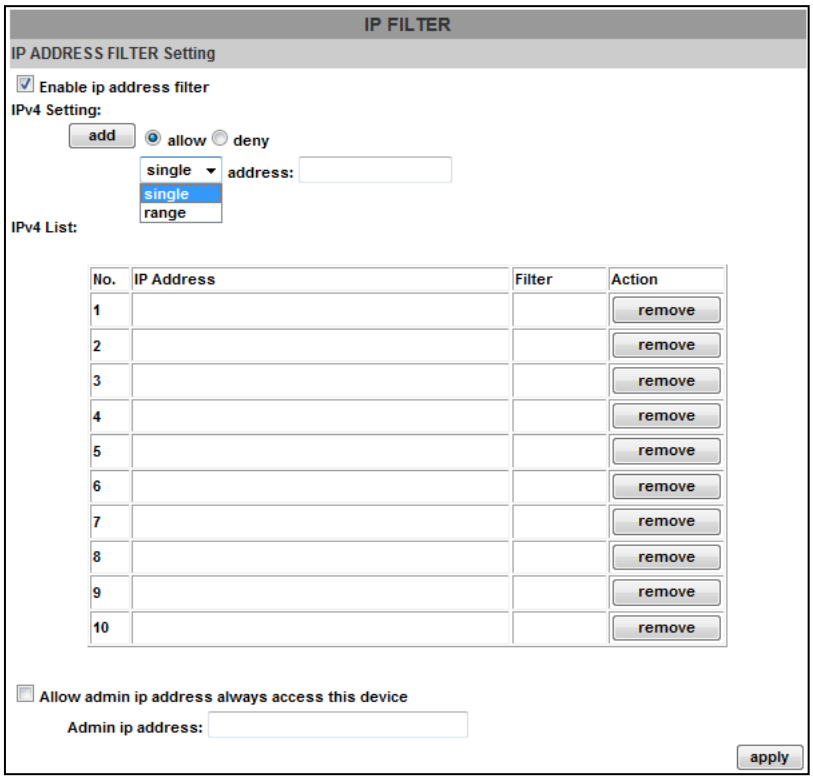
b. SNMP(Simple Network Management Protocol):

1. Enable SNMPv1 or SNMPv2 and write the name of both Write Community and Read Community.

2. Enable SNMPv3. Set Security Name, Authentication Type, Authentication Password, Encryption Type, Encryption Password of Write mode and Read mode.

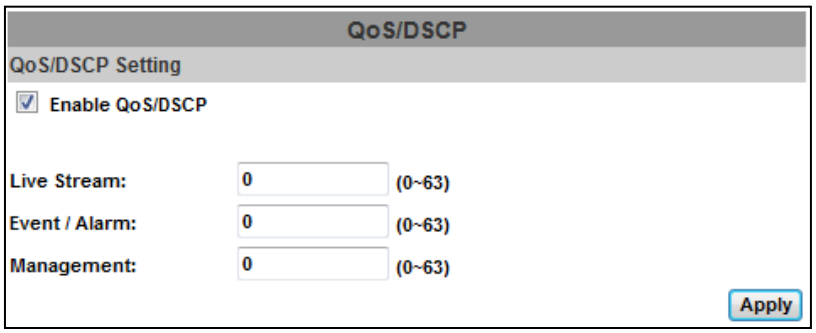
3. Enable SNMPv1/SNMPv2 Trap for detecting the Trap server. Please set what event needs to be detected.

c. Access list:”Enable IP address filter” for setting the IP address which allows or denies this camera. There are two options, single and range.



d. QoS/DSCP(Quality of Server/Differentiated Services Code-point):

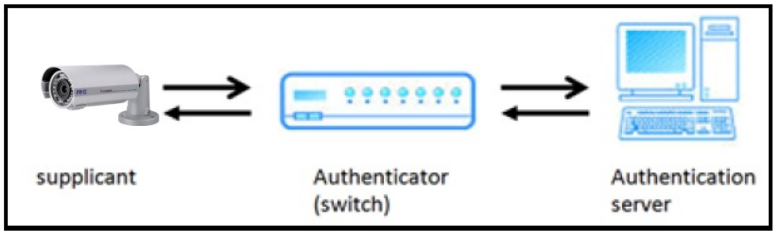
DSCP specifies a simple mechanism for classifying and managing network traffic and provide QoS on IP networks. DSCP is a 6-bit in the IP header for packet classification purpose. Please define it for Live Stream, Event / Alarm and Management.



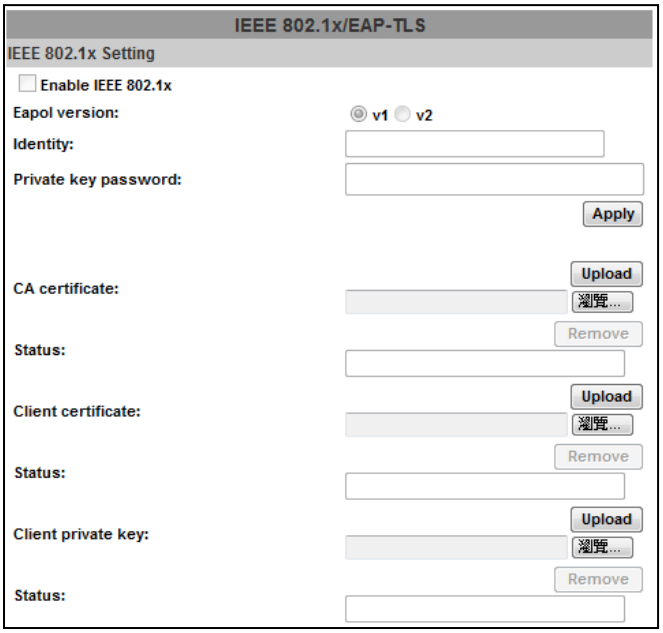
e. IEEE 802.1x:

IEEE 802.1x is an IEEE standard for port-based Network Access Control. It provides an authentication mechanism to a device on a LAN or WLAN.

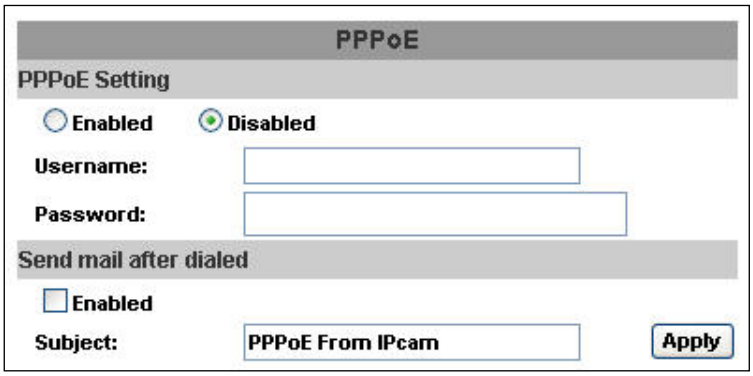
The EAPOL protocol support service identification and optional point to point encryption over the local LAN segment.



Please check what version of the authenticator and authentication server is supported. This camera supports EAP-TLS method. He Please enter the ID, password issued by the CA, then upload related certificates.



iii、 PPPoE & DDNS:

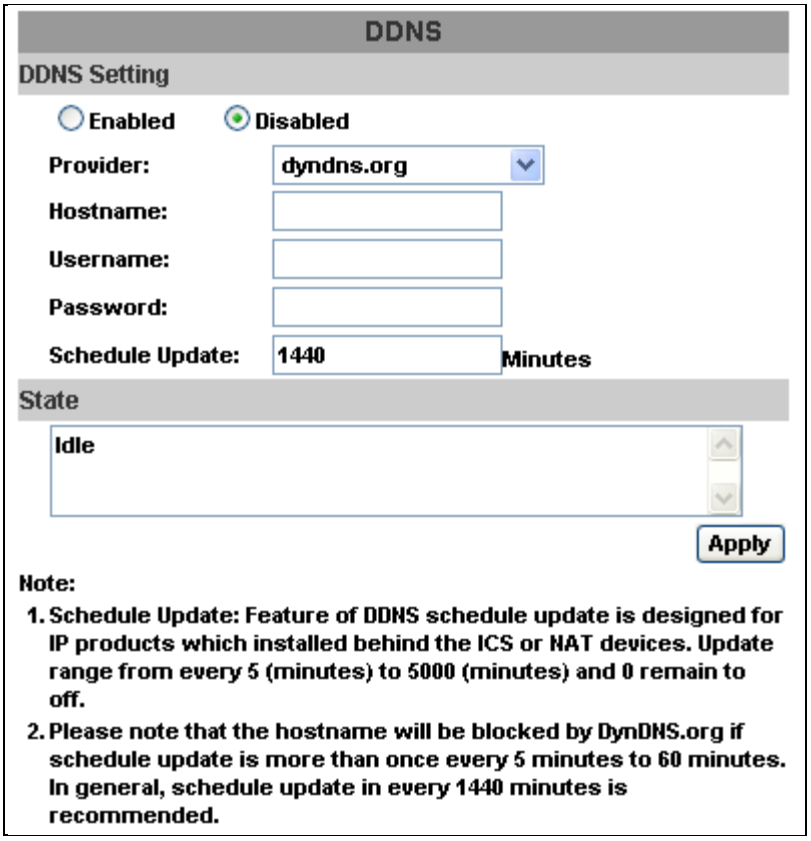


a. PPPoE: Select “Enabled” to use PPPoE. Key-in Username and password for ADSL connection. Send mail after dialed: When connect to the internet, it will send a mail to a specific mail account. For mail setting, please refer to “Mail and FTP” settings.

b. DDNS:

It supports DDNS (Dynamic DNS) service.

1. DynDNS:


DDNS
DDNS Setting
Enabled
Disabled
Provider:
dyndns.org
Hostname:
Username:
Password:
Schedule Update:
1440
Minutes
State
Idle
Apply
Note:
1. Schedule Update: Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.
2. Please note that the hostname will be blocked by DynDNS.org if schedule update is more than once every 5 minutes to 60 minutes. In general, schedule update in every 1440 minutes is recommended.

(1) Enable this service

(2) Key-in the DynDNS server name, user name, and password.

(3) Set up the IP Schedule update refreshing rate.

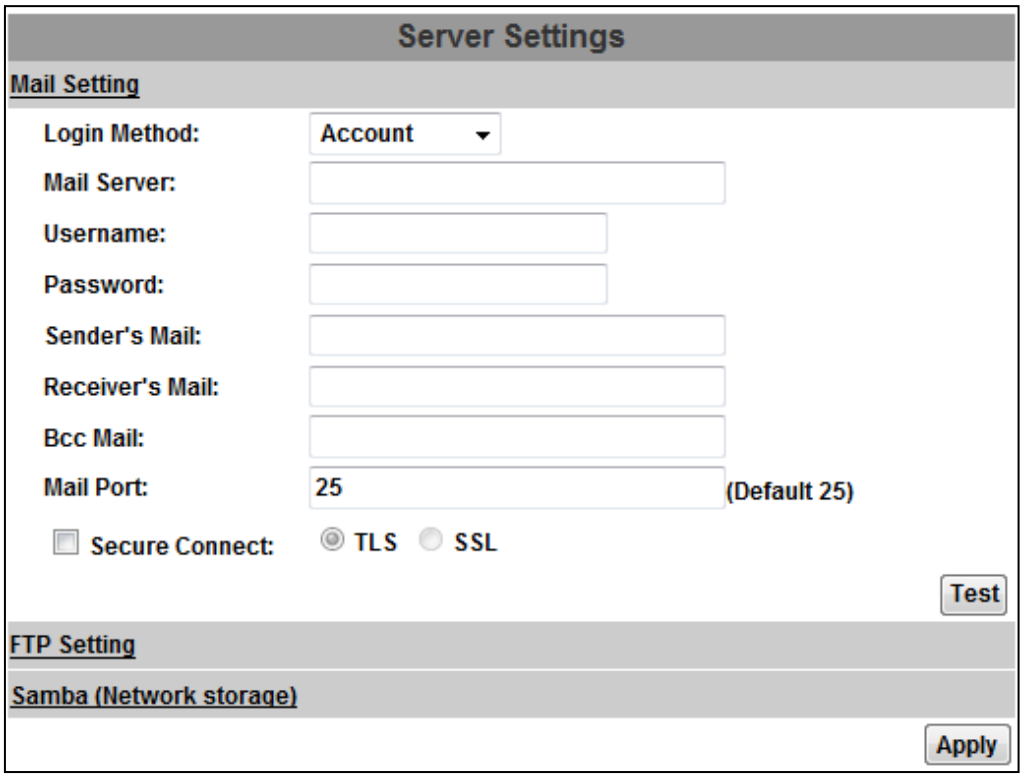
(4) Click “Apply”

(5) If the schedule update is too frequently, the IP may be blocked. In general, schedule update every day (1440 minutes) is recommended

iv, Server settings

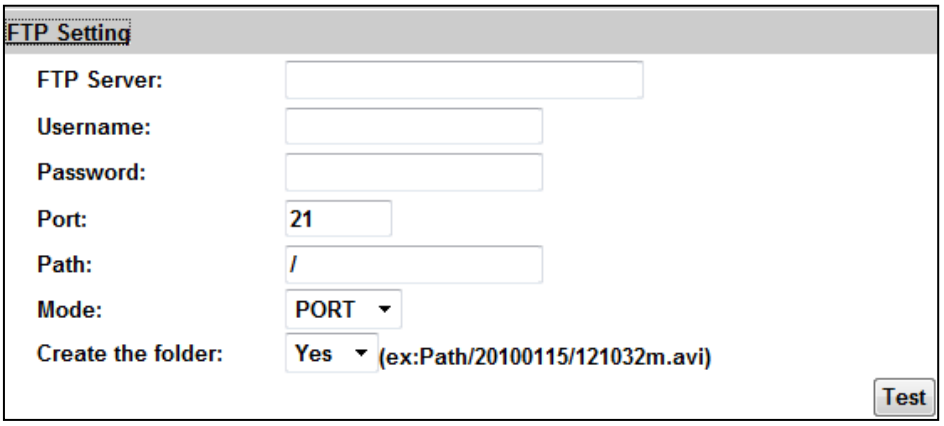
There are three choices of server types available: Email, FTP and SAMBA. Select the item for display detailed configuration options. You can configure either one or all of them.

To send out the video via mail of FTP, please set up the configuration first.



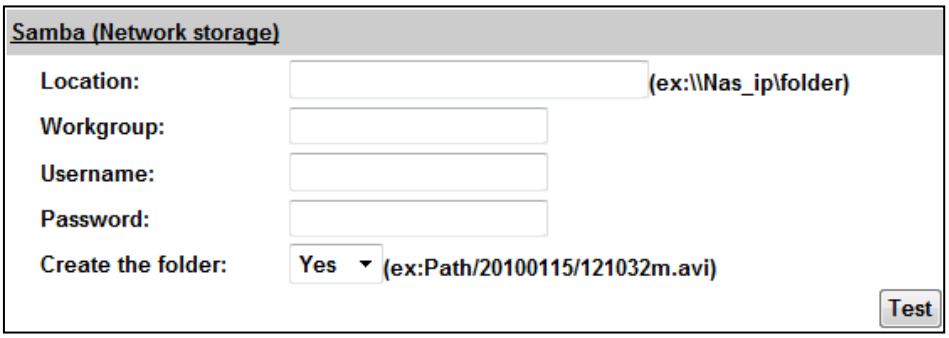
FTP

To send out the video via mail of FTP, please set up the configuration first.



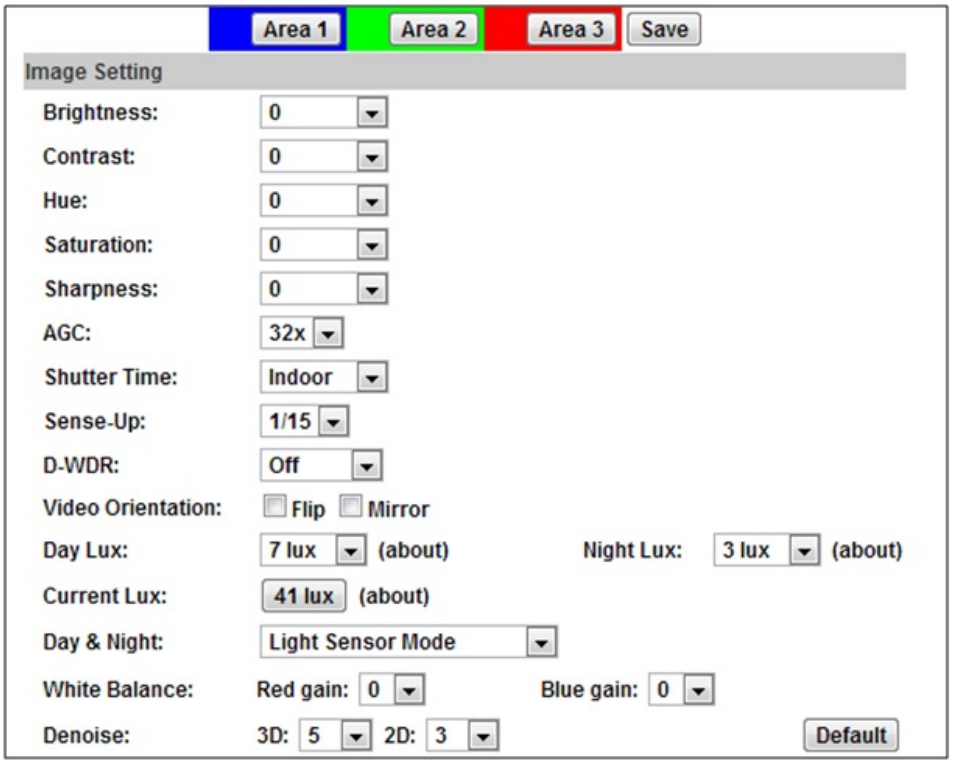
Samba

Select this option to send the media files via a neighbor network when an event is triggered



C. A/V Setting

1. Image Setting



For security and privacy purposes, there are three areas that can be set up for privacy. Click the Area button first, then drag an area on the above image. Remember to save your settings. The masked area will not shown on both live view and recording image.

Please refer to the details below for image settings:

a. Brightness, Contrast, Hue, Saturation, Sharpness can be adjusted here.

b. AGC: The sensitivity of the camera can adjust to the environmental lighting. Enable this function for getting brighter image on low light, but the level of noise may also increase.

c. Shutter Time: Choose the location of your camera or a fixed shutter time. The shorter the shutter time is the less light the camera receives and the image becomes darker , it can adjust by Day and Night.

The available values are: **Outdoor, Indoor, 1/30, 1/50, 1/60, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/10,000**.

Note: When you select a number in "Shutter Time", the shutter time will vary in a range and be controlled by camera automatically.

d. D-WDR: This function enables the camera to reduce the contrast in the view to avoid the dark zones resulting from over and under exposure. If the Input resolution is 30fps, the default value is fixed on ENABLED.

If the D-WDR is enables. The values for bright, dark and contrast can be adjusted.

e. Video Orientation: Flip or mirror the image.

f. Day & Night: The camera can detect the light level of the environment. If you choose "Light Sensor Mode", the image will be turned black and white at night in order to keep a clear image. To set light sensor mode, appoint a lux standard of switching D/N. Current lux value is provided for reference. Under "Times Mode" the switch time of Color / Black and white will be according to the given time. You can also control it by choosing "Color" or "B/W".

g. White Balance: Change the values of Red Gain and Blue Gain

h. Denoise: This function is able to filter the noise and blur from the image and show a clearer view.

3D denoise analyzes successive pictures to detect the noise places while.

2D denoise analyzes only single picture.

2. Video Setting

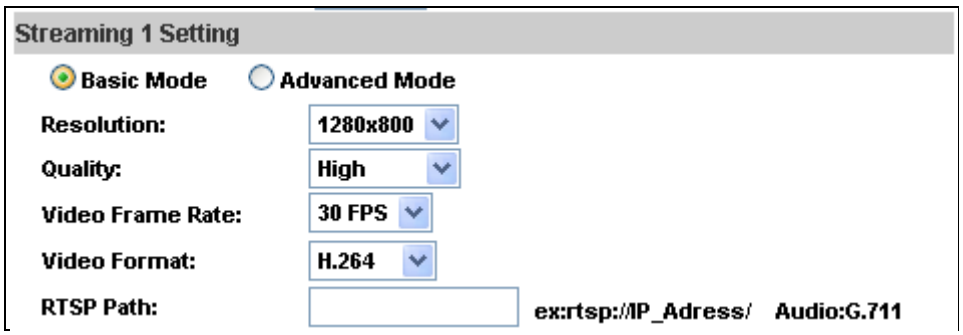
User may select the camera system type

Streaming 1 Setting: Basic mode and Advanced mode

Streaming 2 Setting: Basic mode, Advanced mode, and 3GPP mode

(Max Video Frame Rate for both streaming combined is 30 FPS)

a. Streaming 1 Basic Mode:



1. Resolution:

   There are 5 resolutions that can be chosen.
   1920x1080, 1280x720, 640x480, 320x240, 176x144

2. Quality:

There are 5 levels:
Best/ High/ Standard/ Medium/ Low

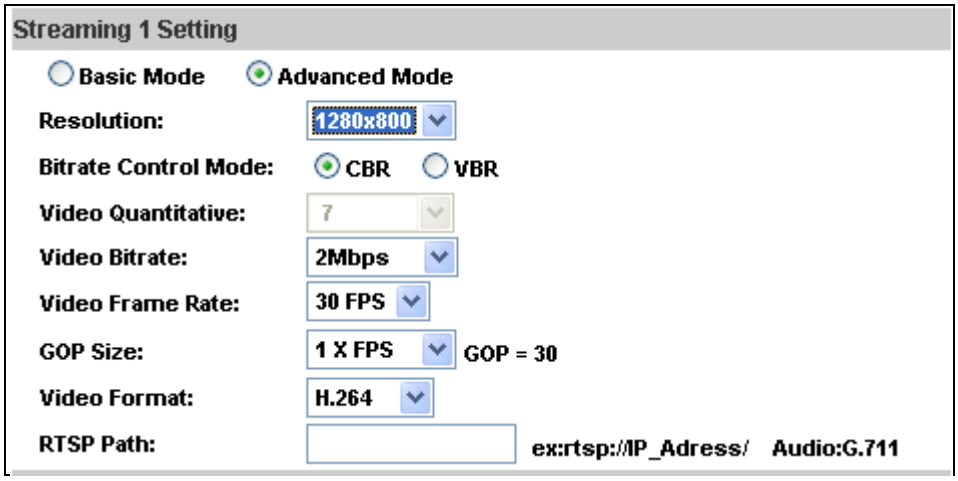
The higher the quality is, the bigger the file size is. Not good for internet transmission.

3. Video Frame Rate: The video refreshing rate per second.

4. Video Format: H.264, JPEG

5. RTSP Path: RTSP output name

b. Streaming 1 Advanced Mode:



1. Resolution:

There are 5 resolutions that can be chosen:
1920x1080, 1280x720, 640x480, 320x240, 176x144

2. Bitrate Control Mode

There are CBR〔Constant Bit Rate〕 and VBR〔Variable Bit Rate〕

CBR: 32Kbps~8Mbps (the higher the CBR is, the better the video quality is)

VBR: 1(Low) ~10(High) – Compression rate, the higher the compression rate, the lower the picture quality is; vise versa. The balance between VBR and network bandwidth will affect picture quality. Select the VBR rate to avoid picture breaking up or lagging.

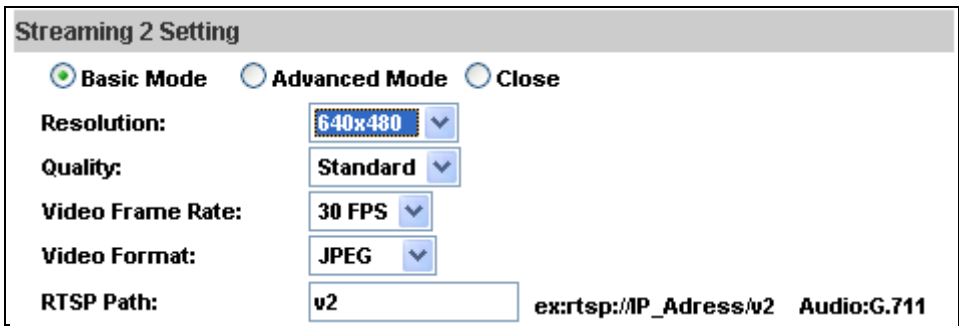
3. Video Frame Rate
   The video refreshing rate per second.

4. GOP Size
   It means "Group of Pictures". The higher the GOP is, the better the quality is.

5. Video Format: H.264 or JPEG

6. RTSP Path: RTSP output connecting path

c. Streaming 2 Basic Mode:



1. Resolution:

   There are 5 resolutions that can be chosen.
   1920x1080, 1280x720, 640x480, 320x240, 176x144

2. Quality:

   There are 5 levels to adjust:

Best/ High/ Standard/ Medium/ Low

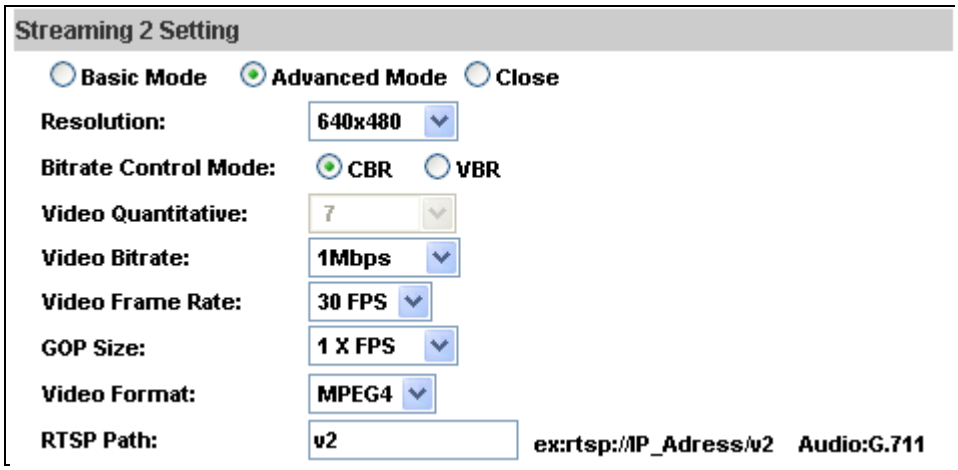
The higher the quality is, the bigger the file size is. Not good for internet transmission.

3. Video Frame Rate: The video refreshing rate per second.

4. Video Format: H.264, JPEG

5. RTSP Path: RTSP output connecting route

d. Streaming 2 Advanced Mode:



1. Resolution:

There are 4 resolutions can be chosen.
1280x720, 640x480, 320x240, 176x144

2. Quality:

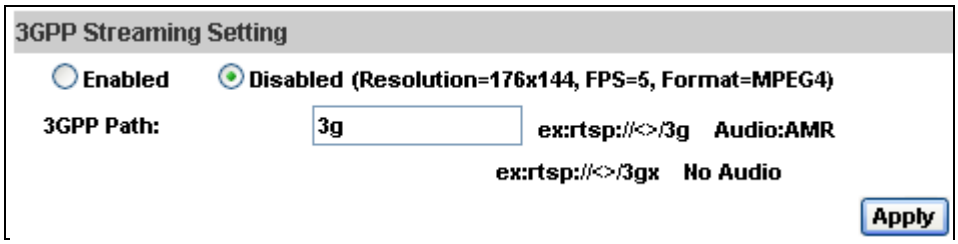
There are 5 levels to adjust:
Best/ High/ Standard/ Medium/ Low
The higher the quality is, the bigger the file size is. Not good for internet transmit

3. Video Frame Rate: The video refreshing rate per second.

4. Video Format: H.264 or JPEG

5. RTSP Path: RTSP output connecting path

e. 3GPP Streaming mode:



The RTSP here is separated from the RTSP settings in the "IP SETTINGs".

3GPP Streaming can still work even if you select "disabled" in the RTSP server option of IP Setting.

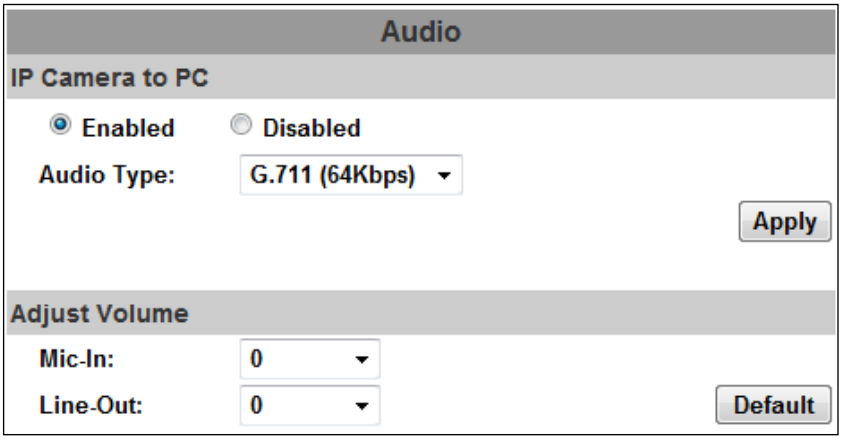
1. Enable or Disable 3GPP Streaming

2. 3GPP Path: 3GPP output connecting path. If the IP address of your camera is 192.168.40.150, and you key-in "3g" in the column, the 3GPP path will be rtsp://192.168.40.150/3g.

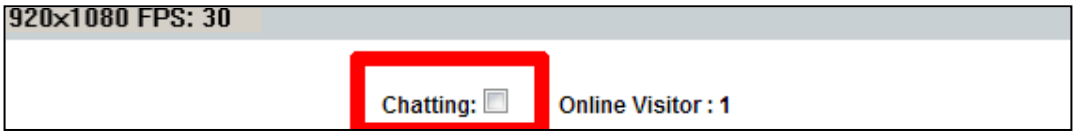
3. Audio

The IP CAMERA supports 2-way audio. The user can send audio from the IP Camera built-in mic to the remote PC; the user can also send audio from remote PC to IP Camera's external speaker.

b. Audio from IP camera built-in mic to local PC: select "Enable" to start this function and also can select the audio type.



c. Audio from local PC to IP Camera: Check “chatting” in the browsing page.

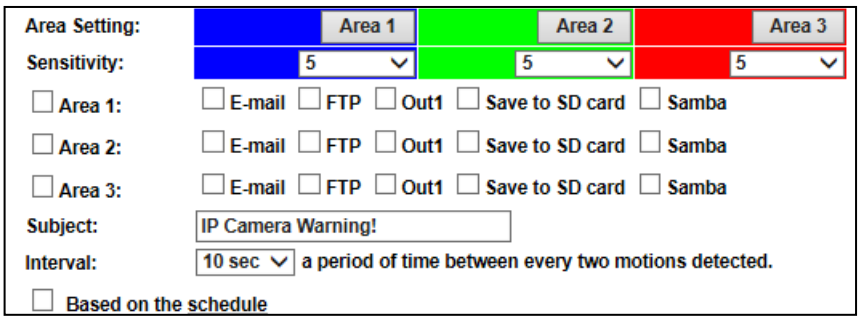


The Audio will not be smooth when the SD card is recording.

D.Event List

1. Event Setting

a. Motion Detection



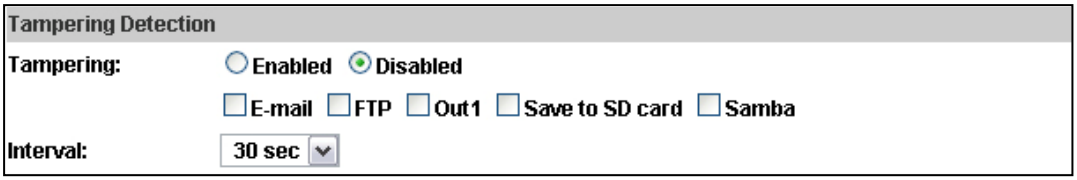
To enable motion detection, tick **Area 1/2/3**. Click **Area 1/2/3** in **Area Setting**, and draw an area on the preview screen. When motion is detected in the area, the word **Motion!** will be displayed on the live screen. The camera will send video or snapshot to specific mail addresses, trigger the output device, or save video to FTP/ Micro SD card/ Samba.

By selecting **save to SD card**, the video or snapshot will be saved to the Micro SD card. Also, by ticking **E-mail/ FTP/ Samba** on the **Log** option, the motion detection log will be sent to **E-mail/ FTP/ Samba** simultaneously.

• Interval: For example, when selecting "10 sec", once the motion is detected and the action is triggered, it cannot be triggered again within 10 seconds.

• Based on the schedule: When the option box is ticked, only during the selected schedule time the motion detection is enabled.

b. Tampering Detection



When the camera view is covered, moved, hit by strong light, or out of focus, the tampering detection will be triggered, and send snapshot or video to mail/FTP/Samba/SD card, or trigger the external alarm. For example:

Before Tampering Detection

Tampering Triggered (Defocused)

Before Tampering Detection

Tampering Triggered (Lens Covered)

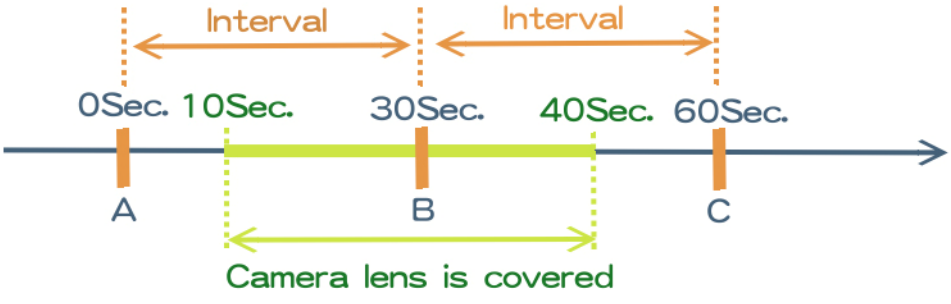
Before Tampering Detection

Tampering Triggered (Glare)

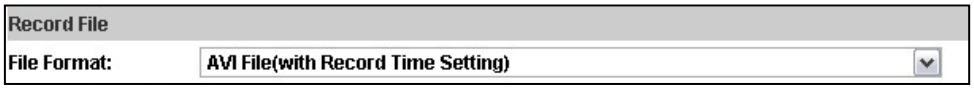
Before Tampering Detection

Tampering Triggered (Camera Moved)

• Interval: The tampering detecting interval. Take the diagram below as example. The interval is set for 30 second; the camera lens is covered during 10 - 40 sec. At time point B, the camera compares the view with time point A, and sends an alarm when it founds that the lens is covered. At time point C, the camera compares the view with time point B, and sends an alarm when it founds that the lens is uncovered.



c. Record File



When an event occurs, the IP camera will record a video clip or take snapshot, and then send to mail/ FTP/ Samba. Select the file format to be saved.

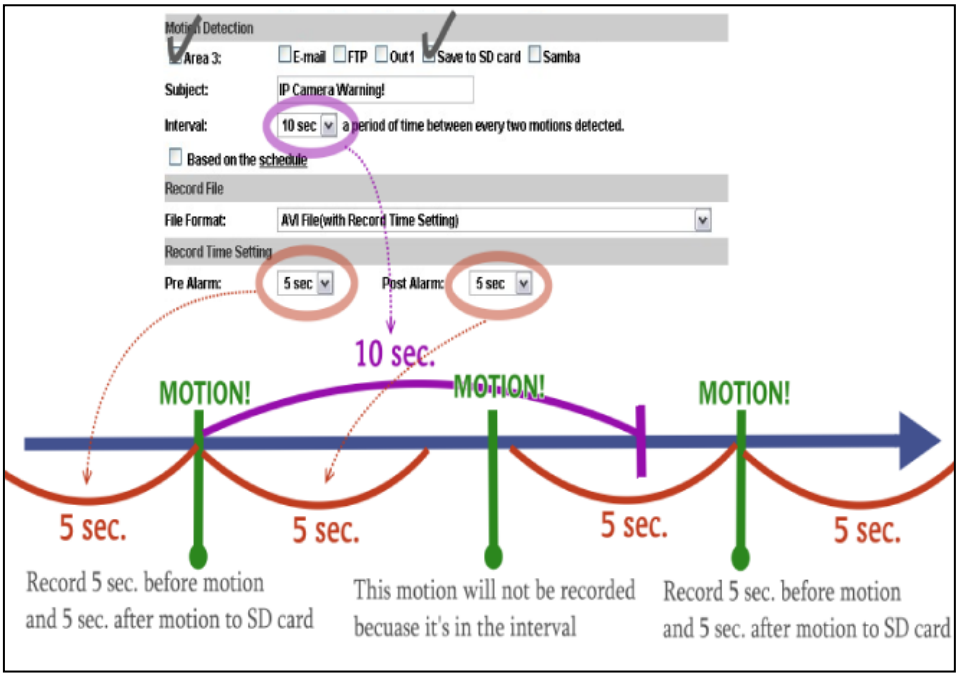
• AVI File (with Record Time Setting): Save AVI video file. The video length is according to the value set in Record Time Setting.

• JPEG Files (with Record Time Setting): This option is enabled when selecting **JPEG** video format in **streaming 1** on **Video Setting**, this option can be enabled. Select this option to save several JPEG picture files. The successive picture files cover a period of time according to the value set in **Record Time Setting**.

• JPEG File (Single File with Interval Setting): Save a single JPEG picture file when the event occurs.

d. Record Time Setting

When an event occurs, the IP camera can record a video clip or take a snapshot, and then send it via mail/ FTP/ Samba. Select the video recording length before and after the event is detected.

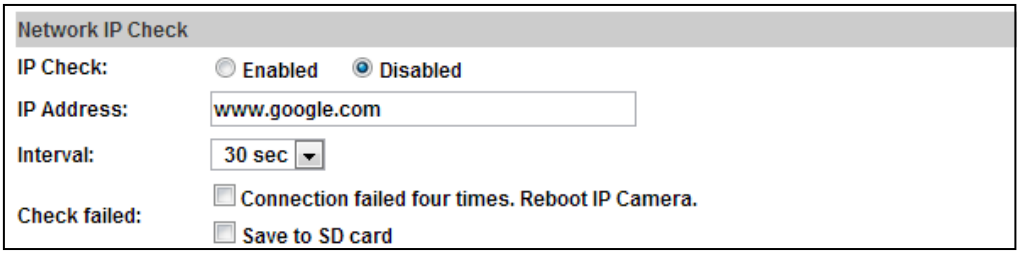


e. Network Dis-connected:

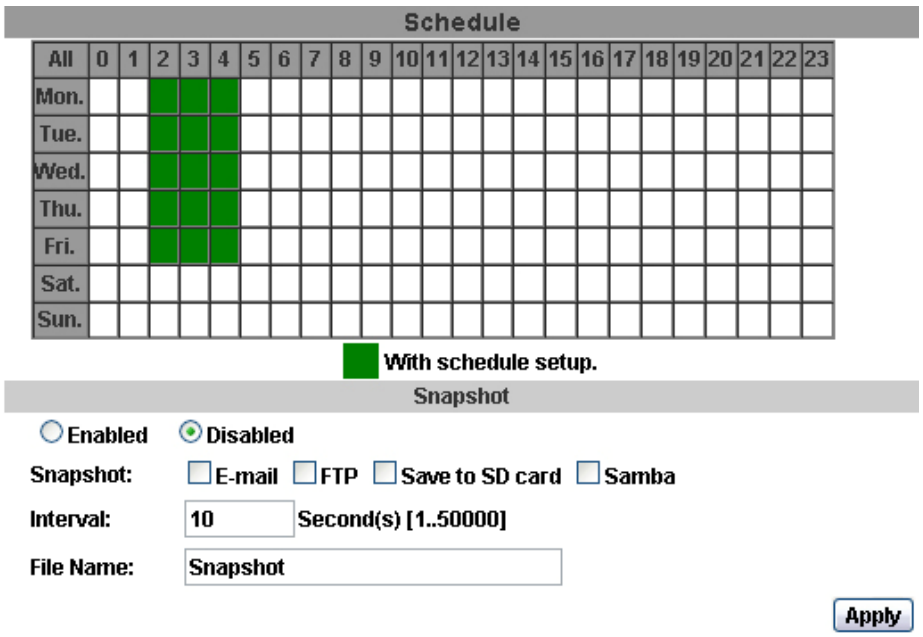
The IP Camera will scan the network. The image will be record to the SD card after the IP Camera detects network dis-connected, if set **Save to SD card**.

f. Network IP check:

After enabling IP Check, the IP camera can check if the network server is connecting. If the IP camera checking failed, the image will be recorded into the SD card.



2. Schedule

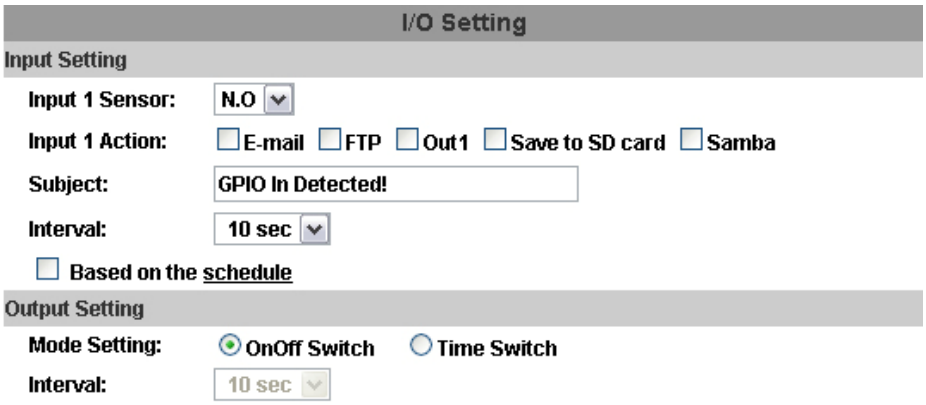


a. Schedule: After complete the schedule setup, the camera data will be recorded according to the schedule setup.

b. Snapshot: After enable the snapshot function; the user can select the storage position of the snapshot file, the interval time of the snapshot and the reserved file name of the snapshot.

c. Interval: The interval between two snapshots.

3. I/O Setting



a. Input Setting:

The IP Cam supports input and output. When the input condition is triggered, it can trigger the relay; send the video to mail addresses /FTP server / SAMBA.

- Interval:

  For example, if you select "10 sec" here, once the motion is detected and action is triggered, it cannot be triggered again within 10 seconds.

- Based on the schedule:

  When the option box is ticked, only during the selected schedule time the I/O is enabled. That is, for example, the 11th hour of Monday has not been colored in the schedule table, then no action will be triggered even if the camera detects input signal during 11:00~12:00 on Monday.

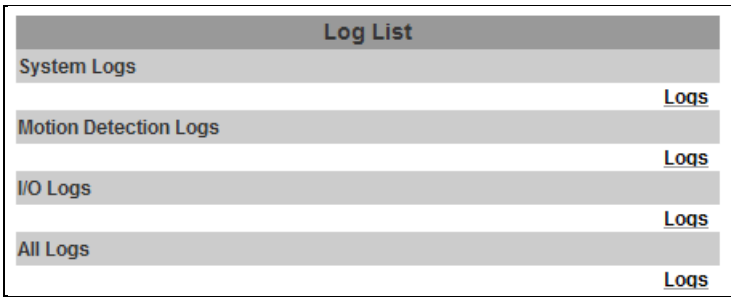
b. Output Setting:

The output mode affects the DO or relay out duration.

(i) ON/Off Switch: The camera triggers the external device and lasts for 10 seconds. You can turn off the alarm manually by clicking “off” at the right bottom of the live video page.

(ii) Time Switch: The camera triggers the external device and lasts for certain time according to the internal setting, and the user is not allowed to break off the alarm manually.

a. Log List



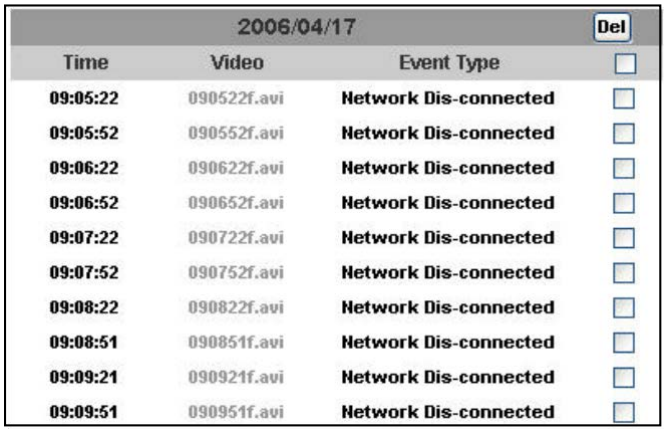
Sort by System Logs, Motion Detection Logs and I/O Logs. In addition, System Logs and I/O Logs won’t lose data due to power failure.

4. Micro SD card

a. Playback

Please Insert the Micro SD card before use it. Make sure to push the Micro SD card into the slot completely.

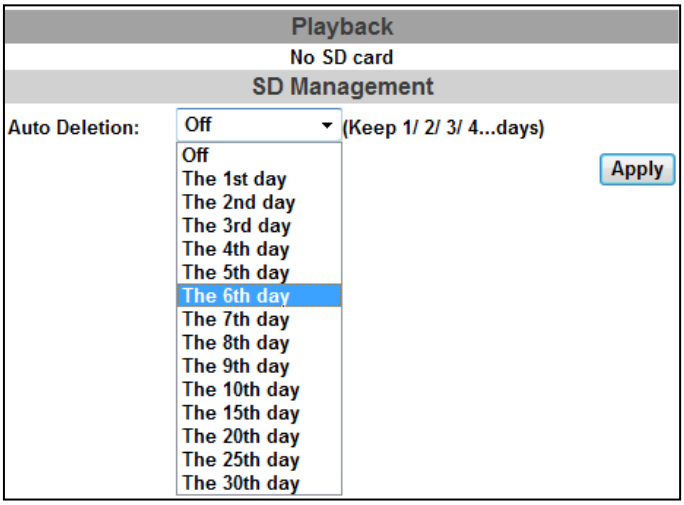
Click the date listed on this page, and it shows the list of the video. The video format is AVI. Click the video to start Microsoft Media Player to play it. To delete the video, check it, then click "Del".



2006/04/17			Del
Time	Video	Event Type	☐
09:05:22	090522f.avi	Network Dis-connected	☐
09:05:52	090552f.avi	Network Dis-connected	☐
09:06:22	090622f.avi	Network Dis-connected	☐
09:06:52	090652f.avi	Network Dis-connected	☐
09:07:22	090722f.avi	Network Dis-connected	☐
09:07:52	090752f.avi	Network Dis-connected	☐
09:08:22	090822f.avi	Network Dis-connected	☐
09:08:51	090851f.avi	Network Dis-connected	☐
09:09:21	090921f.avi	Network Dis-connected	☐
09:09:51	090951f.avi	Network Dis-connected	☐

b. SD Management

Choosing “The 1st day” means the recoding file will be kept for one day. Example: It is five o’clock now. Choose “The 1st day”. The files will be kept from five o’clock yesterday to five o’clock today.
The oldest file will be deleted if the Micro SD card is
full.



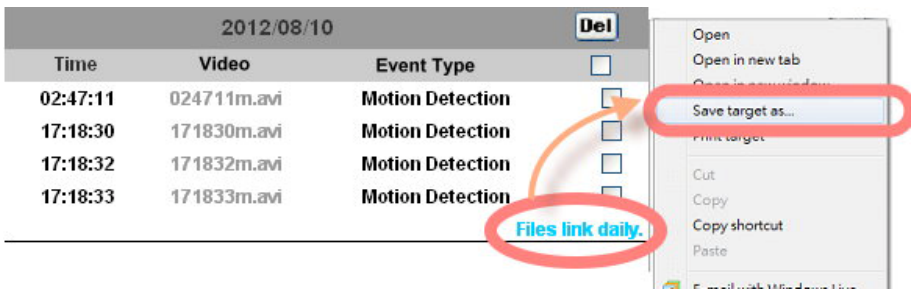
Note：The use of the SD card will slightly affect the operation of the IP Camera, such as affecting the frame rate of the video.

c. Copy to PC

You can insert the Micro SD card to the PC and read the files directly, or use FlashGet instead to download the files from the IP camera. (In this way you do not need to pull out the Micro SD card from the camera.)

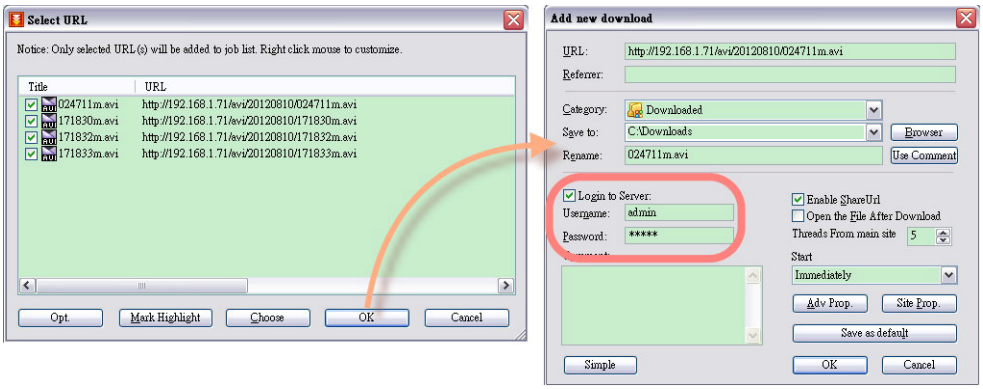
To use FlashGet for downloading image and video data from the Micro SD card, please follow the steps:

(i) Enter data list and right-click “Files link daily”, select “save target as…” then save the link list to PC.

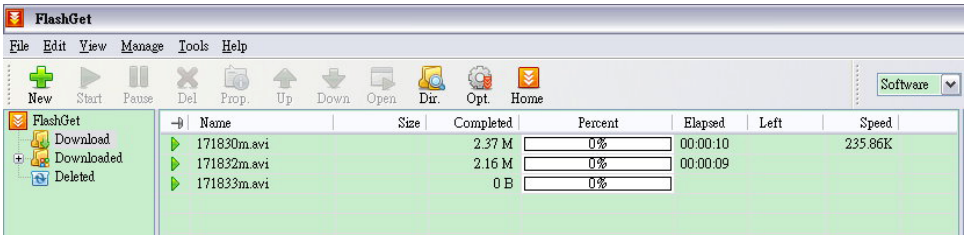


(ii) Open FlashGet, select "File" → "Import" → "Import list", and find the link list file you just saved. The file name may be called “SD_list”.

(iii) FlashGet will show you the link list, and you can tick the files you want to copy to your PC. Give the directory path in the new download window, and remember to enable "Login to Server": key in the IP Camera username and password.



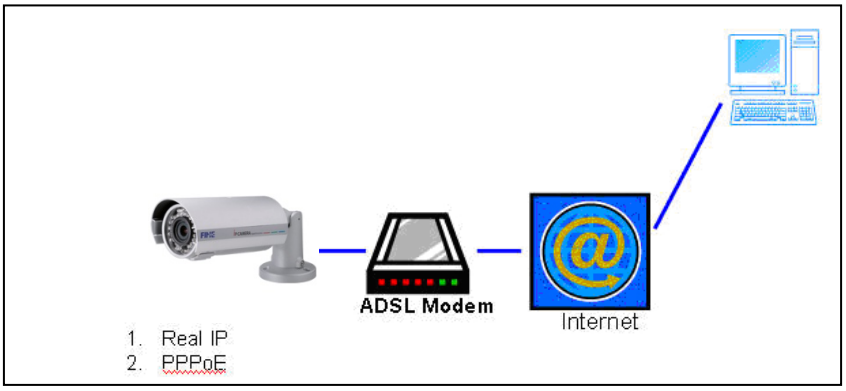
(iv) Click OK to start download.



- FlashGet is free software that can be downloaded from FlashGet official website. The example above is based on FlashGet ver.1.9.6.

VI. Network Configuration

i、 Configuration 1:



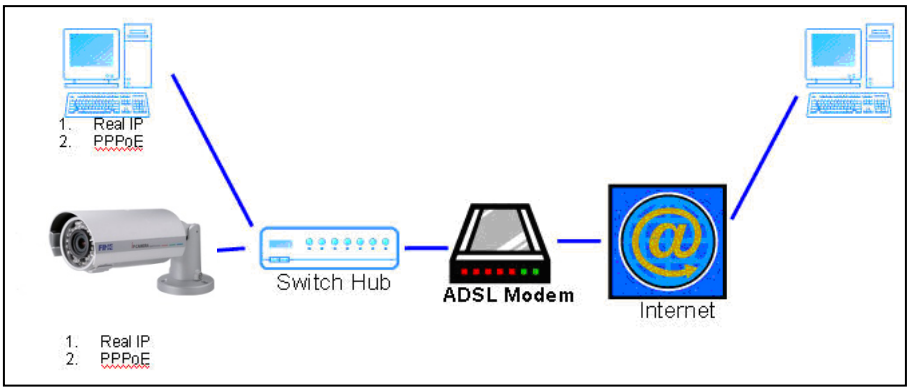
a. Internet Access: ADSL or Cable Modem

b. IP address: One real IP or one dynamic IP

c. Only the IP CAMERA is connected to the internet

d. For fixed real IP, set up the IP into IP CAMERA. For dynamic IP, start PPPoE.

ii、 Configuration 2：



a. Internet Access: ADSL or Cable Modem

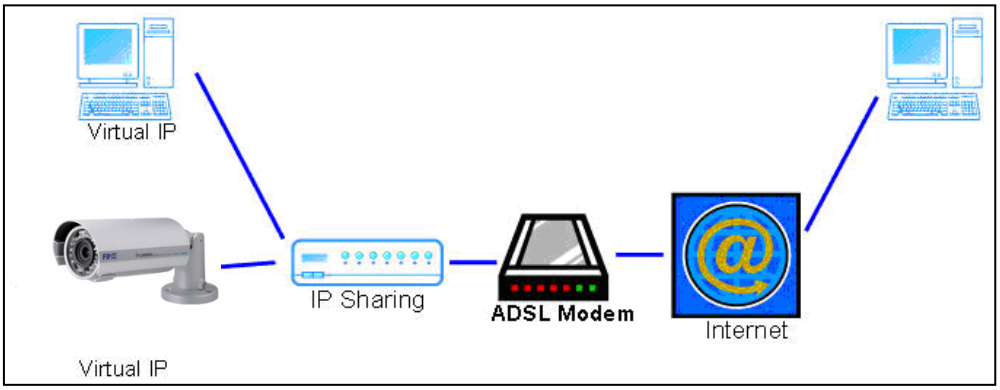
b. IP address: More than one real IP or one dynamic IP

c. IP CAMERA and PC connect to the internet

d. Device needed: Switch Hub

e. For fixed real IP, set up the IP into IP CAMERA and PC. For dynamic IP, start PPPoE.

iii、 Configuration 3:



a. Internet Access: ADSL or Cable Modem

b. IP address: one real IP or one dynamic IP

c. IP CAMERA and PC connect to the internet

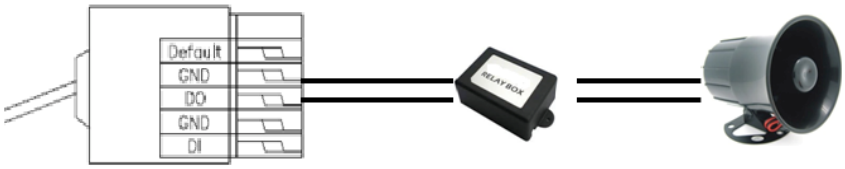
d. Device needed: IP sharing

e. Use virtual IP, set up port forwarding in IP sharing.

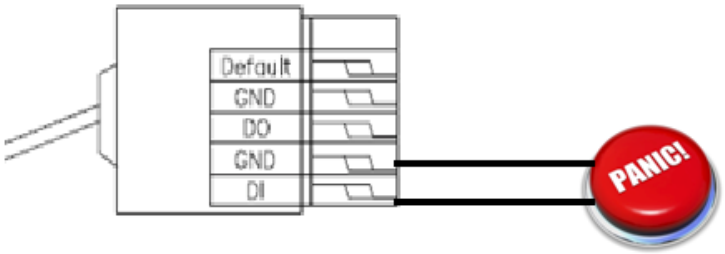
VII. I/O Configuration

1. I/O Connection

a. Please connect the GND & DO pin to the external relay (buzzer) device.



b. Please connect the GND & DI pin to the external trigger device.

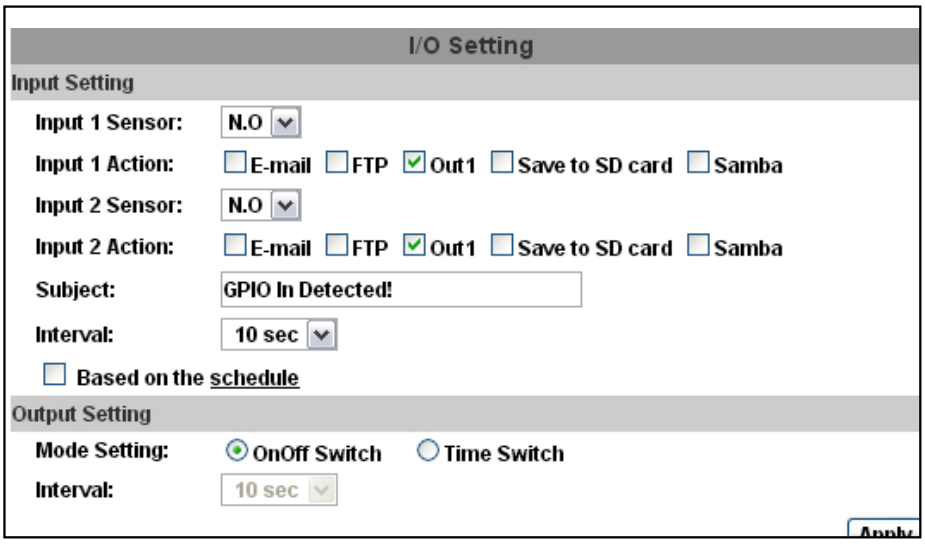


c. I/O PIN definition

- GND (Ground): Initial state is LOW
- DO (Digital Output): DC 5V
- DI (Digital Input): Max. 50mA, DC 5V

2. I/O Setup

a. Click I/O Setting from the system setup page via IE, and check “Out1” to enable I/O signal.



b. Output Test

After the external input and output hardware is installed, you can use the "Relay Out" bottom on the live video page to test if DO / Relay Out works.

(i) On Off Switch mode:

Clicking "ON" will trigger the external output device for 10 seconds. For example, your alarm buzzer will continuously ring for 10 seconds. After 10 seconds the buzzer stops ringing, or you can manually break off the output signal by clicking "OFF".

(ii) Time Switch mode:

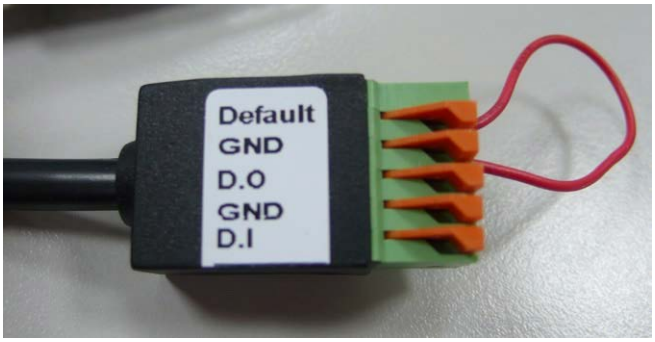
Click "Pulse", the camera will trigger the external output device for several seconds; the duration length is according to the "interval" setting in Output Setting.

VIII. Factory Default

If you forget your password, please follow the steps to revert back to default value.

• Remove the power and Ethernet cable.

• Take an electronic wire, plug one side of the wire into "Default" and the other side into "GND" on the terminal block as the picture below.



• Connect the power to the camera again. It takes around 30 seconds to boot the camera.

• Remove the wire and plug in the Ethernet cable after the camera finishes booting.

• Re-login the camera using the default IP (http://192.168.1.200), and user name (admin), password (admin).

IX Micro SD Card Compatibility

The following are the recommended Micro SD Card:

Transcend	SDHC	class4	16GB
	SDHC	class4	32GB
	SD	class4	16GB
	SD	class4	32GB
	SDHC	class6	4GB
	SDHC	class6	8GB
	SDHC	class6	16GB
	SD	class6	4GB
	SD	class6	8GB
	SD	class6	16GB
SanDisk	SDHC	class4	4GB
	SDHC	class4	8GB
	SDHC	class4	16GB